

AD-A242 022



DTIC

SELECTED

OCT 24 1991

(2)

UNCLASSIFIED

S D
C

ARMY APPRENTICESHIP PROGRAM (AAP)

PHASE III - EVALUATION OF AAP OPERATIONS



DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited



TRADOC ANALYSIS COMMAND -
FORT BENJAMIN HARRISON

UNCLASSIFIED

91-13967



91 10 24 009

UNCLASSIFIED

ACN 73991

ARMY APPRENTICESHIP PROGRAM EVALUATION STUDY
PHASE III - EVALUATION OF AAP OPERATIONS
FINAL REPORT

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONROE, VIRGINIA 23651

TRADOC ANALYSIS COMMAND - FORT BENJAMIN HARRISON

DISTRIBUTION STATEMENT,
APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

UNCLASSIFIED



Accession Per	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Uncontrolled	<input type="checkbox"/>
Justification _____	
By _____	
Distribution/ _____	
Availability Codes _____	
Dist	Avail And/or Special
A-1	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

Form Approved
OMB No 0704-0188
Exp Date Jun 30, 1986

REPORT DOCUMENTATION PAGE			
1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS	
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		5. MONITORING ORGANIZATION REPORT NUMBER(S)	
6a. NAME OF PERFORMING ORGANIZATION TRAC-FBHN		6b. OFFICE SYMBOL <i>(If applicable)</i> ATRC-B	7a. NAME OF MONITORING ORGANIZATION Requirements & Programs Directorate
6c. ADDRESS (City, State, and ZIP Code) Ft. Ben Harrison, IN 46216-5000		7b. ADDRESS (City, State, and ZIP Code) TRAC-RPD Ft. Monroe, VA 23651-5143	
8a. NAME OF FUNDING/SPONSORING ORGANIZATION TRADOC, DCSPAL		8b. OFFICE SYMBOL <i>(If applicable)</i> ATPL-B	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code) Education Directorate Ft. Monroe, VA 23651-5000		10. SOURCE OF FUNDING NUMBERS	
		PROGRAM ELEMENT NO.	PROJECT NO.
		TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Army Apprenticeship Program Evaluation Phase III, Evaluation of AAP Operations (Unclassified)			
12. PERSONAL AUTHOR(S) Martin R. Walker			
13a. TYPE OF REPORT Final Report	13b. TIME COVERED FROM JAN 90 TO MAY 90	14. DATE OF REPORT (Year, Month, Day) 90/5/25	15. PAGE COUNT
16. SUPPLEMENTARY NOTATION			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	AAP Army Apprenticeship Program Job Training Education Programs
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The Army Apprenticeship Program (AAP) is currently suffering from neglect. The state of the AAP can be characterized as one of a "death spiral". Without immediate attention and effort, the AAP will continue its spiral to its eventual demise. While apprentices, supervisors, Education Services Officers (ESOs) and Program Sponsored Service School (PSSS) have provided generally favorable comments about the need and intentions of the program, a persistent theme from ESOs and PSSSs was that "they need help with the program." AAP management needs to make an effort to correct the problems associated with the AAP. This report identified the problem areas that need to be resolved: lack of feedback on apprentices; inadequate AAP documentation; lack of commitment to the AAP; obstacles to AAP completion; lack of adequate AAP resources; insufficient AAP marketing; lack of AAP training; and little or no recognition for participation in the AAP. To solve the operational problems associated with the program, the study proposed to reorganize the AAP based upon the concept of individual school ownership of their apprenticeship programs. AAP management needs to delegate the freedom to make decisions about the AAP to local TRADOC schools. Thus, creating the concept of an "accountability center". TRADOC schools should be totally accountable for, not only their MOSSs, but also the operation and administration of their particular apprenticeship programs. The entry process for the AAP should be changed to promote the use of the AAP by USAREC as a recruiting incentive. To solve other operational problems, the study proposed the development of: a system of providing continuous feedback on apprentices; SOP for the APM; AAP marketing brochure; apprentice handbook; an automated data processing system for the APM, fast-tracking apprentices; partial completions; and separate promotion points for AAP completions. The cost of administering the AAP for FY89 was estimated at 87K.			
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. UNCLASSIFIED CLASSIFICATION	
22. NAME OF RESPONSIBLE INDIVIDUAL		22b TELEPHONE (8880 Area Code)	22c OFFICE SYMBOL ATRC-B

TECHNICAL NOTES

ON

ARMY APPRENTICESHIP PROGRAM EVALUATION STUDY
PHASE III - EVALUATION OF AAP OPERATIONS

25 MAY 1990

UNCLASSIFIED

PREPARATION:

Martin R. Walker
MARTIN R. WALKER
Operations Research Analyst

APPROVAL:

Gerald A. Klopp
GERALD A. KLOPP
Director, TRAC-FBHN

SPECIAL TECHNICAL NOTICE

This paper is an unofficial document intended for wide distribution to obtain comments. The views, opinions, and/or findings contained herein are those of the author and should not be construed as the official position of the TRADOC Analysis Command, US Army Training and Doctrine Command, or an official Department of the Army position, policy, or decision unless so designated by other official documentation.

Comments should be sent to:

Director, US Army TRADOC Analysis Command - Ft. Harrison
ATTN: ATRC-B (Bldg 401B)
Ft. Benjamin Harrison, IN 46216-5000

NOTICES

DESTRUCTION NOTICE

When this report is no longer needed, the Department of the Army organizations will destroy it in accordance with procedures given in AR 380-5. Navy and Air Force elements will destroy it in accordance with applicable directives. The Department of Defense contractors will destroy the report according to their requirements of Section 14 of the Industrial Security Manual for Safeguarding Classified Information. All others will return the report to Headquarters, United States Army Training and Doctrine Command.

DISTRIBUTION STATEMENT

In addition to the security regulations which apply to this document, each transmittal outside the Department of Defense must have prior approval of the U.S. Army Training and Doctrine Command.

DISCLAIMER

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents. The words "he", "his", "man", "men" and "soldier", when used in this publication, represent both the masculine and feminine genders unless otherwise specifically stated.

ACKNOWLEDGEMENTS

This study was sponsored by the Deputy Chief of Staff of Personnel Administration and Logistics (DCSPAL), U.S. Army Training and Doctrine Command (TRADOC) and performed by TRADOC Analysis Command - Fort Benjamin Harrison (TRAC-FBHN) with the assistance of Myrtle Williams of the Deputy Chief of Staff of Training (DCST) staff. Ms Williams seized the initiative by identifying an urgent need for an evaluation of the Army Apprenticeship Program. This study would not have been conducted, or successful, without her outstanding support and direction. The author, as well as the Army, owes her a great deal of gratitude and appreciation for her assistance in the study process. The author of the report was Martin R. Walker from TRAC-FBHN.

SECURITY CHECKLIST

- 1. TITLE OF STUDY:** Army Apprenticeship Program Evaluation Study,
Phase III - Evaluation of AAP Operations
- 2. CLASSIFICATION:** This report is unclassified.
- 3. DISSEMINATION:** Limitations on dissemination have not been
imposed.

TABLE OF CONTENTS

	<u>PAGE</u>
SPECIAL TECHNICAL NOTICE	i
NOTICES	ii
ACKNOWLEDGMENTS	iii
SECURITY CHECKLIST	iv
TABLE OF CONTENTS	v
LIST OF APPENDICES	vii
LIST OF TABLES	viii
LIST OF FIGURES	ix
GLOSSARY OF ACRONYMS	xi
ABSTRACT	xiii
MAIN REPORT	
CHAPTER 1 - Introduction and Background	1
1. Study Background	1
2. Study Progress	1
3. Problem	3
4. Objective	3
5. Scope	4
6. Limitations	4
7. Essential Elements of Analysis (EEA)	4
CHAPTER 2 - Future of Apprenticeships	5
1. Labor Market (Workforce 2000)	5
2. Apprenticeship Concept	7
3. Army Apprenticeships Program	9
4. Army versus Civilian Apprenticeships	11
CHAPTER 3 - Army Apprenticeship Program Occupations	15
1. Army Skills in the Year 2000	15
CHAPTER 4 - Army Apprenticeship Program Organization	17
1. Functional Organization	17
2. Operating Procedures	19

TABLE OF CONTENTS (Continued)

	<u>PAGE</u>
CHAPTER 5 - Deficiencies of the Army Apprentice Program	27
1. PSSS/ESO Response	27
2. AAP Supervisors Response	38
3. Additional Problems/Deficiencies	44
CHAPTER 6 - Program Alternatives	49
1. Functional Organization	49
2. Changes in Responsibilities.....	50
3. New Operating Procedure	55
4. Support for AAP Reorganization	57
CHAPTER 7 - Resource Impacts of the AAP.....	61
1. AAP Operating Resources.....	61
2. Total Cost.....	63
CHAPTER 8 - Conclusions and Recommendations	65

LIST OF APPENDICES

<u>Appendix</u>		<u>Page</u>
A	Study Tasker	A-1
B	Study Plan	B-1
C	Supervisor Questionnaire	C-1
D	Resource Worksheet	D-1
E	References	E-1
F	Distribution	F-1
G	Report Addendum	G-1

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Changes in Population Composition	6
2	ESO and PSSS Identified Problem Areas	27
3	First Problem Area - AAP Documentation	28
4	Program Measure Comparison of Feedback Data	32
5	Third Problem Area - Commitment for the AAP	32
6	Forth Problem Area - Program Completions	34
7	Completion Rates for the Ten Largest AAP MOSS	35
8	Comparison of Performance Characteristics	42
9	Supervisor Comments Regarding the AAP	
10	AAP Knowledge - Sample of Military Personnel	45
11	Average Percentage of Time Personnel Spend Supporting AAP Functions	58
12	Number of Personnel & Percentage of Time Dedicated to AAP Functions	60
13	FY 89 Cost of Operating the AAP	62

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Army Apprenticeship Evaluation Strategy	2
2	Industrial Shifts From Goods to Services	6
3	Top Civilian Apprenticeship Program Occupations	9
4	Top Army Apprenticeship Program Occupations	10
5	Future Multiple Training Strategies for Army MOSs	15
6	Duties and Responsibilities of Organizations that Administer the AAP	18
7	AAP Organization - Functional Elements	17
8	Task #1 - Complete AAP Application	23
9	Task #2 - Verification of Previous Work Experience	24
10	Task #3 - Maintain AAP Daily Work Experience Record	25
11	Task #4 - Requesting/Obtaining AAP Completion Certificate	26
12	Time-line for Joining the AAP	36
13	AAP knowledge and Information	39
14	Information AAP Supervisors Use to Assign Work	40
15	Apprentice Honesty at Recording Work Hours	41
16	Comparison of Apprentice Work Characteristics	42
17	The New AAP Functional Organization	49
18	The New AAP Organizational Structure	50
19	Summary of Proposed Changes in Duties /Responsibilities	51
20	Proposed New Entry/Operating Procedures for the AAP	56

x

GLOSSARY OF ACRONYMS

AAP	Army Apprenticeship Program
ACES	Army Continuing Education System
ACF	Army College Fund
ADP	Automatic Data Processing
AEC	Army Education Center
AIT	Advanced Individual Training
ALC	Army Learning Center
APM	Apprenticeship Program Manager
ARI	Army Research Institute
BAT	Bureau of Apprenticeship and Training
CG	Commander General
CONUS	Continental United States
DA PAMS	Department of Army Pamphlets
DCSPAL	Deputy Chief of Staff Personnel Administration and Logistics
DCSCD	Deputy Chief of Staff Combat Developments
DCST	Deputy Chief of Staff Training
DOIM	Directorate of Information Management
DOL	Department of Labor
EEA	Essential Element of Analysis
ESO	Education Services Officer
ESS	Education Services Specialist
ETS	End Term of Service
FTD	Futures Training Division
FORSCOM	Forces Command
IPR	In Progress Review

GLOSSARY OF ACRONYMS (Continued)

JTPA	Job Training Partnership Act
MACOM	Major Area Command
MOS	Military Occupation Specialty
NAB	National Alliance of Business
OCONUS	Outside Continental United States
OECD	Organization for Economic Cooperation & Development
PC	Personal Computer
POC	Point of Contact
PSSS	Program Sponsor Service School
SQT	Skill Qualification Test
SSMP	Sample of Military Personnel
SPSS	Statistical Package for the Social Sciences
TAPC	Total Army Personnel Command
TRAC-FBHN	TRADOC Analysis Command - Fort Benjamin Harrison
USAPIC	US Army Personnel Integration Command
USAREC	United States Army Recruiting Command
WIP	Work In Process

ABSTRACT

1. Conclusions.

a. The purpose of this study is to report results of the third phase of the overall Army Apprenticeship Program (AAP) evaluation. The third phase consisted of a review of literature, interviews with subject matter experts and collection/analysis of data requested from personnel within Education Service Officer (ESO), Program Sponsor Service School (PSSS), and AAP supervisors. Cost data was also collected to determine the operating cost of the program.

b. Civilian industry has determined that the "Apprenticeship Concept" is a sound means of training skills. Industry leaders recognize that it is essential that apprenticeship programs and training programs be expanded to meet the growing needs for skilled labor in the future. The trends in civilian apprenticeships are to expand the concept by developing linkages with Education and Vocational Training, and increasing the flexibility of apprenticeship training programs. One means of increasing the flexibility of apprenticeship programs is through a competence-based approach that certifies skills developed on-the-job.

c. The strategies for developing skills needed by the Army in the year 2000 are undergoing a great deal of modification. As the Army tackles a major restructuring, innovative strategies are being developed by the Futures Training Division (FTD), Deputy Chief of Staff Training (DCST) office to reduce the cost of military training. Briefly, one strategy proposed by the FTD DCST is to contract training program development and/or instruction through vocational schools and community colleges. This training concept could help the Army develop a "Dual Apprenticeship System" by linking vocational schools and/or community college to the Army on-the-job training. A dual system is similar to trends in the private sector and would build more formal academic credentials into the Army's apprenticeship structure. TRADOC should reemphasize the need for apprenticeship "type" training for developing the skills needed for future, (i.e. the works of BAT in Apprenticeship 2000) to TRADOC schools.

d. The AAP is currently suffering from neglect. The state of the AAP can be characterized as one of a "death spiral". Without immediate attention and effort, the AAP will continue its spiral to its eventual demise. While apprentices, supervisors, ESOs and PSSSs have generally provided favorable comments about the need and intentions of the program, a persistent theme from ESOs, and PSSSs was that "they need help with the program." AAP management needs to make an effort to correct the problems associated with the AAP. The study identified the problem areas that need to be resolved: lack of adequate feedback on

apprentices after they leave the Army; inadequate internal and external AAP documentation; lack of commitment at all levels of management (Unit through the Department of Army) to the AAP; obstacles that impede AAP completions; lack of adequate AAP resources; insufficient AAP marketing; lack of AAP training; and little or no recognition for participation in the AAP.

2. Recommendations.

a. To solve the operational problems associated with the program, the study proposed to enhancing the AAP based upon the concept of individual school ownership of their apprenticeship programs. AAP management needs to continue delegating the freedom to make decisions about the AAP to local TRADOC schools. Thus, promoting the concept of an "accountability center". TRADOC schools should be totally accountable for not only their MOSSs, but also the operation and administration of their particular apprenticeship programs. This concept would sustain separate apprenticeship programs reporting directly to the DCST office. TRADOC must incorporate the Apprenticeship Program Manager (APM) into the future "school model." The entry process for the AAP should be changed to promote the use of the AAP by USAREC as a recruiting incentive. To solve other operational problems, we propose the development of: a system of providing continuous feedback on AAP soldiers; Standard Operating Procedures (SOP) for the APM; AAP marketing brochure; apprentice handbook; an automated data processing system for the APM; fast-tracking apprentices; and separate promotion points for partial and full AAP completions.

b. The cost of administering the AAP for FY89 was estimated at \$87 thousand.

APPENDIX A - STUDY TASKER



CHAPTER 1 - Introduction and Background

1. Study Background. At the request of the Deputy Chief of Staff Personnel, Administration, and Logistics (DCSPAL), TRADOC Analysis Command - Ft. Benjamin Harrison (TRAC-FBHN) is conducting an evaluation of the AAP. The purposes of the overall AAP evaluation study are to identify the benefits that the AAP provides to soldiers, the Army, and the civilian work force and to evaluate the cost of offering the program. Figure 1 briefly identifies the strategy for the overall study effort. TRAC-FBHN developed a three phase methodology that would thoroughly identify the benefits that the AAP provides to soldiers, the Army, and to the civilian workforce. The first phase of the study evaluated historic data on soldiers who participated in the AAP. The second phase was a survey effort to determine the attitudes and perceptions of those soldiers participating or who have participated towards the value of the AAP. This portion, the third phase, is intended to determine the operational problems and deficiencies inherent with the AAP and to identify the corrective actions needed to revise the program.

2. Study Progress.

a. Phase I. The results of the first phase of the study were briefed to the DCSPAL at the first study In Progress Review (IPR) on 24 March 1989. The results showed that soldiers who participate in the AAP:

- (1) Enlist for longer terms of service;
- (2) Have higher levels of job performance as measured by the Army's Skill Qualification Test (SQT);
- (3) Have lower attrition rates and;
- (4) Reenlist at higher rates.

When combined, these factors contribute to the Army being the benefactor of increased active duty man-months for soldiers participating in the AAP. As a result of these findings, the DCSPAL directed TRAC-FBHN to conduct the second phase of the evaluation. The purpose of phase II was to identify, through attitudinal data, whether AAP had any effect on soldiers decisions to enlist and reenlist.

c. Phase II. The results of the second phase of the study were briefed to the DCSPAL at the second AAP IPR held on 7 December 89. These results were included in a separate interim report titled Phase II Evaluation of AAP Survey Results, dated 31 January 1990. The following conclusions about soldiers who participated in the AAP were:

**ARMY APPRENTICESHIP PROGRAM (AAP)
OVERVIEW OF EVALUATION STRATEGY**

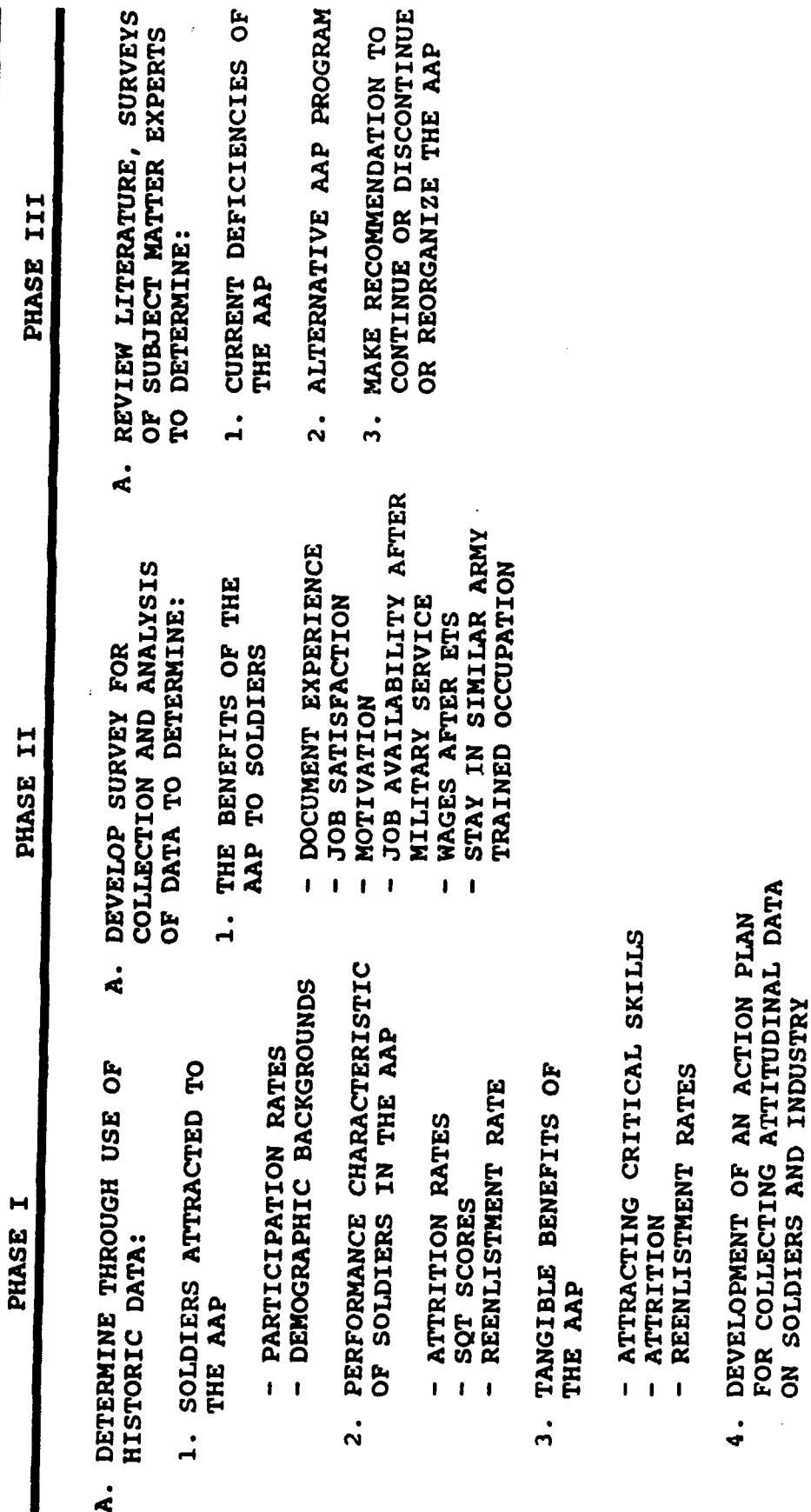


Figure 1. Army Apprenticeship Program Evaluation Strategy

(1) They enlisted for reasons different than other Army soldiers, (i.e., self-improvement and job/skill training).

(2) Their enlistment decisions were positively influenced by the AAP, thus demonstrating that the AAP could be an effective recruiting incentive because it has the potential of positively influencing the decisions of American youth interested in job/skill training. AAP soldiers have a greater propensity to reenlist in order to complete the program.

(3) They were focused primarily on career development. They enlisted for specifically for job training. They are taking more courses related to their military occupations. They are more likely to work full time and to take those job skills learned in the Army to a civilian occupation after they ETS.

(4) They have positive perceptions of the value of the AAP on their careers. They believe that they have benefited more from their Army experience and recognize greater significance in the value of Army training and job experience.

(5) On a negative note, survey data on those soldiers who are preparing to separate from the Army, suggests there are some problems or deficiencies associated with the AAP.

3. Phase III Problem.

a. Recently, a review by HQDA and TRADOC HQs has placed the AAP under increased scrutiny due to the lack of measures to evaluate program effectiveness, and the perceived high cost of administering the program is believed to outweigh the benefits obtained from offering the program.

b. The survey of AAP soldiers identified some discontent among those soldiers who have participated in the AAP and were planning to leave the Army. This discontent is with regards to the perceived value or usefulness of the AAP. This suggests that there may be operational problems or deficiencies inherent in the design of the AAP.

4. Objective. The objective of this report is to present the findings of the third phase of the AAP Evaluation study. Briefly, the third and final phase of this study effort is essentially an "administrative review" of the AAP. This report will discuss: the future of apprenticeships; whether the AAP is targeted for those skills needed by the Army; what, if any, deficiencies/problems exists with the AAP; what actions are needed to correct the deficiencies; current AAP operating procedures; alternative means of administering the AAP; and the cost of operating the AAP and alternative programs.

5. Scope. Phase III study effort included a review of literature, interviews with subject matter experts and the collection and analysis of data requested from personnel within Education Service Offices (ESOs) and Program Sponsored Service School (PSSS). Cost data was also collected to determine the cost of the program and the cost of potential alternative apprenticeship programs.

6. Limitations. The third phase of the overall AAP evaluation study was planned and accomplished in .5 professional staff year.

7. Essential Elements of Analysis (EEA). At the beginning of the study process, EEA's were developed that would support the study objectives.

a. EEA (1) What is the future of civilian Apprenticeship programs?

b. EEA (2) Do current apprenticeable MOSS represent the job skills needed in the future?

c. EEA (3) What are some the current deficiencies of the AAP?

d. EEA (4) What are some alternatives to the way the AAP is currently being administered?

e. EEA (5) What is the estimated yearly cost of administering the AAP and alternative operating programs?

CHAPTER 2 - Future of Apprenticeships

1. Labor Market (Workforce 2000)

a. Elizabeth Dole, the Secretary of Labor, has publicly stated "that America's workforce is in a state of unreadiness, unready for the new jobs, unready for the new realities and unready for the new challenges of the 90's."

b. To assure itself a prominent place in world markets, the US must focus on productivity, education, skill training, research and development, labor-management relations, and economic policy. The Department of Labor (DOL) is concerned with helping American workers prepare for an economic environment that will be characterized by rapidly changing technology and shifting demands for goods and services. The DOL contributed to a national dialogue on the relevant issues and questions that will determine the US economic future through a project called "Workforce 2000." The Workforce 2000 Project has sketched a picture of future job and labor market trends. The programs, policies, and issues that are part of Workforce 2000 are based on DOL studies and projections of what kinds of jobs the economy will produce in the future and who will be available to perform them. The private sector must take the lead in worker training, but the government has to play a role as well. Through the Workforce 2000 effort, the DOL has attempted to ascertain the government's role in facilitating changes in education, job and skill training, and economic policy.

c. The US economy is likely to continue to create new jobs, but if education and job training are not upgraded, American workers will not have the necessary skills to compete in world markets. New jobs will be concentrated in occupations requiring post-secondary skills. The National Alliance of Business (NAB), in an effort to expand the thinking of personnel decision-makers, has publicly stated that "the US economy is already moving towards an entry-level hiring crisis". Furthermore, many of today's workers lack the skills required to perform the more demanding jobs in the future. According to Workforce 2000, we will see more women, older persons, minorities, and disadvantaged people in the labor force by the year 2000. In addition, the labor pool will be comprised of fewer and less qualified individuals available for Army recruitment. The following significant trends affect the future market for skilled workers in our labor force:

(1) Demographics.

(a) Age. Declining birth rates have adversely affected the supply of young workers. The number of traditional aged entry-level employees, 17-21 years old, will decrease more than 7 percent between 1990 and 1995.

(b) Immigration policies. The labor supply will grow 24% in the next 30 years. As table 1 displays, the largest increases in the labor supply will be in those groups who have traditionally faced the greatest barriers to full participation in the workforce.

Table 1. Changes in Population Composition

Racial	1980	2010	% Change
White	85.9%	81.1%	-17.4%
Black	11.8	13.7	45.1
Asian	1.5	3.1	167.2
<u>Other</u>	<u>0.8</u>	<u>2.1</u>	<u>219.9</u>
Total	100.0%	100.0%	24.5%
<hr/>			
Ethnic			
Hispanic	6.4%	14.0%	170.6%

(2) Technological Change.

(a) The work place is becoming more complex due to the rapid pursuit of new technologies. If current trends continue, the US economy will continue to shift from goods producing to a service producing economy (Figure 2). The work place of the future will be smaller. Small business will produce the most new jobs in the future. These new jobs will likely require some post secondary education. Technical, sales, service, executive, managerial, and professional jobs will grow at the fastest rate.

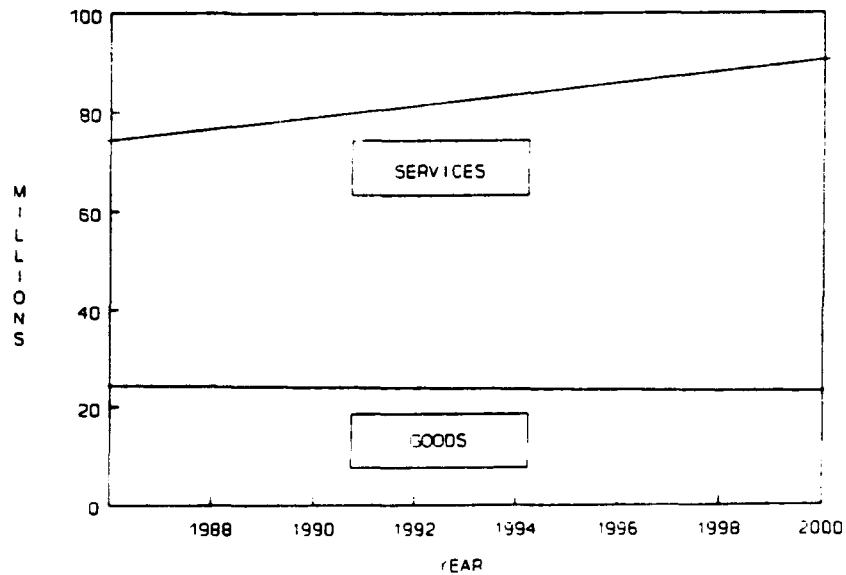


Figure 2. Industrial Shifts From Goods to Services

(b) These trends show that the changing composition of jobs in the work place will demand workers that are highly skilled and more adaptive.

(3) Industrial Competition. The US is part of an increasingly global marketplace. Within this marketplace are countries whose industries are technologically advanced and whose workers are well educated and highly skilled. Thus US industries must continue to upgrade their process and their workforce in order to maintain a competitive position in the world market.

2. Apprenticeship Concept

a. Industry has found that one of the best ways to train youth to become skilled workers is through apprenticeships, on-the-job experience, acquired under direct supervision of a qualified craftsman. The Dictionary of Occupational Titles defines "an apprentice as a worker who is trained under direct journeyman supervision according to a prescribed or traditional series of work processes graded to coincide with increasing trade maturity, in learning a skilled occupation that requires, during the learning process, several years of reasonable continuous employment prior to the time that the worker may be considered a qualified journeyman." An apprenticeship, in its simplest terms, involves scheduled on-the-job training and experience under appropriate supervisory guidance, combined with technical instruction in the subject related to the trade.

b. Apprenticeship training has proved to be an effective method of skill development. Although classroom training provides valuable concepts quickly, real working knowledge is best learned by one-on-one training. The DOL contributed to a national dialogue on relevant issues in apprenticeship training, referred to as Apprenticeship 2000. The purpose of Apprenticeship 2000 was to review the concept of apprenticeships and to determine if they should be expanded to meet the needs of skilled workers in the future. Figure 3 identifies the top ten occupations among civilian apprenticeship programs. Furthermore, the DOL wanted to determine what the role of government is in facilitating change in the policies directed towards apprenticeship training.

c. The Organization for Economic Cooperation & Development (OECD) is placing increased emphasis on improving education and training programs. In late 1988, the DOL and the OECD cosponsored a symposium on "Innovations in Apprenticeship and Training." Participating countries included Austria, Germany, the UK, France, and the US. Symposium participants agreed that apprenticeships and training programs are needed to produce skilled workers who can readily adapt to changing occupational demands. However, there are no standard apprenticeship models for accomplishing this objective. The conclusions of the experts

at this symposium and the studies conducted as part of Apprenticeship 2000, agree on the following areas of focus:

(1) Expanding the Apprenticeship Concept. The number of apprentices world-wide are decreasing. To counter this trend and to expand the apprenticeship concept, governments are acknowledging the need to promote the recognition value of apprenticeships. They are working towards expanding the scope of apprenticeable occupations to nontraditional blue-collar type occupations such as services industries and high-tech research. They are also looking to apprenticeships as a means of breaking down the occupations barriers by expanding access to women and disadvantaged groups.

(2) Linkages with Education/Vocational Training. The two basic initiatives in this area are:

(a) An increasing need to improve coordination between the theoretical or education aspects and practical components or on-job-training aspects of apprenticeship programs. The trend in apprenticeships is to build more formal academic credentials (vocational and community colleges) into the apprenticeship regimen.

(b) There is a growing recognition of the need for using apprenticeships to assist the transition from school to work for noncollege bound youth. While skilled labor appears to be scarce in some labor markets, there are few means for individuals at the low end of the skill/wage ladder, to upgrade their skills and occupational status. A closer association between high schools and apprenticeship programs will provide youth with career ladders and give them greater opportunities to increase their skills and wages. The NAB advocates the concept of job training partnerships. The Job Training Partnership Act (JTPA) provides the funding and structure for most of the job training for the disadvantaged in America. The NAB supports expanding their partnership beyond the JTPA to the educational system in order to prepare young workers for the future. "Skill training needs of the nation, and the current problems endemic to the area of training, cannot be resolved without an effective blending of education vocational education and on-the-job training programs." For instance in Germany, initial training is the responsibility of employers through the "dual system." Dual refers to the partnership of on-the-job training and off-the-job education. Low youth unemployment rates in Germany have been attributed to the "Dual Apprenticeship System." Upon completing school, young people receive job training funded by individual enterprises. To defray the costs of training, youth are paid only a portion of what qualified adult workers are paid. During the 1973-1983 period, the apprenticeship system substantially expanded to meet growing demand for skilled labor in the German economy.

(3) Increase the flexibility of apprenticeship training programs. Instead of requiring specific hours of work experience in an occupation, apprenticeships should be competency-based, with successful completion tied to achieving specified milestones rather than serving a minimum time period. A competency-based apprenticeship system would promote greater transferability of apprenticeship credentials and provide uniform standards for occupational skill development. The Australian Council of Trade Unions in an attempt to reform their system of Industry training and Workforce development, is working towards a job competency-based system of apprentice evaluation. There is a growing attitude, internationally, that apprenticeships need to be designed to be competency-based versus the current time-based orientation. The Australians want to no longer rely on time as the only basis for judging whether an individual is competent to be considered as a journeyman in his/her trade. Along with the competence-based apprenticeship concept, they are currently developing means of certifying skills developed on the job.

TOP TEN CIVILIAN APPRENTICESHIPS
REPRESENT 53% OF CIVILIAN APPRENTICESHIPS

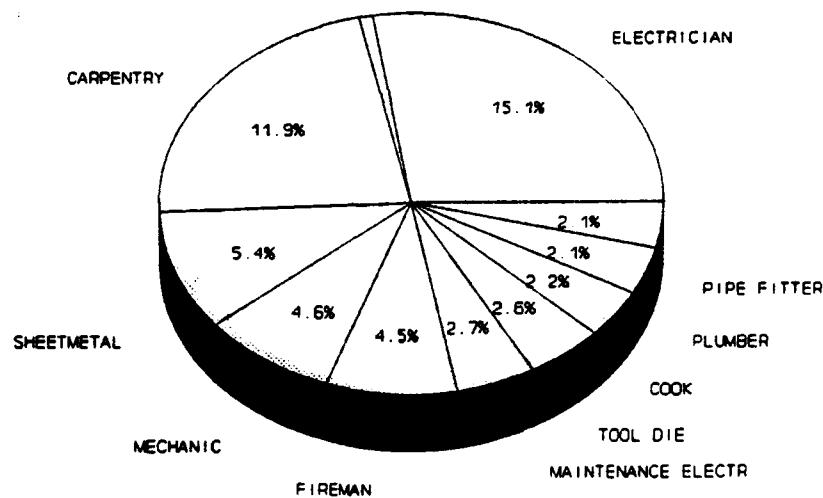


Figure 3. Top Civilian Apprenticeship Program Occupations

3. Army Apprenticeship Program.

a. The Army's apprenticeship program is a prescribed period, where an individual learns a trade through on-the-job training and related instruction. As a result of a July 1975 agreement between the Secretaries of the Army and the US Department of Labor (DOL), the Army has developed apprenticeship programs for all Military Occupation Skills (MOS) considered to have civilian counterpart apprenticeship occupations and

registered them with the DOL, Bureau of Apprenticeship and Training (BAT). Currently, soldiers serving in over 180 different Army MOS can participate in the AAP. The Army offers a vast variety of occupations that soldiers can apprentice in, ranging from Army cooks to mechanics to highly specialized electronic repairers. Figure 4 demonstrates the diversity of these occupations by highlighting the top ten AAP MOS. Comparison of figures 3 and 4, demonstrate the similarities in occupations in civilian and Army apprenticeship programs.

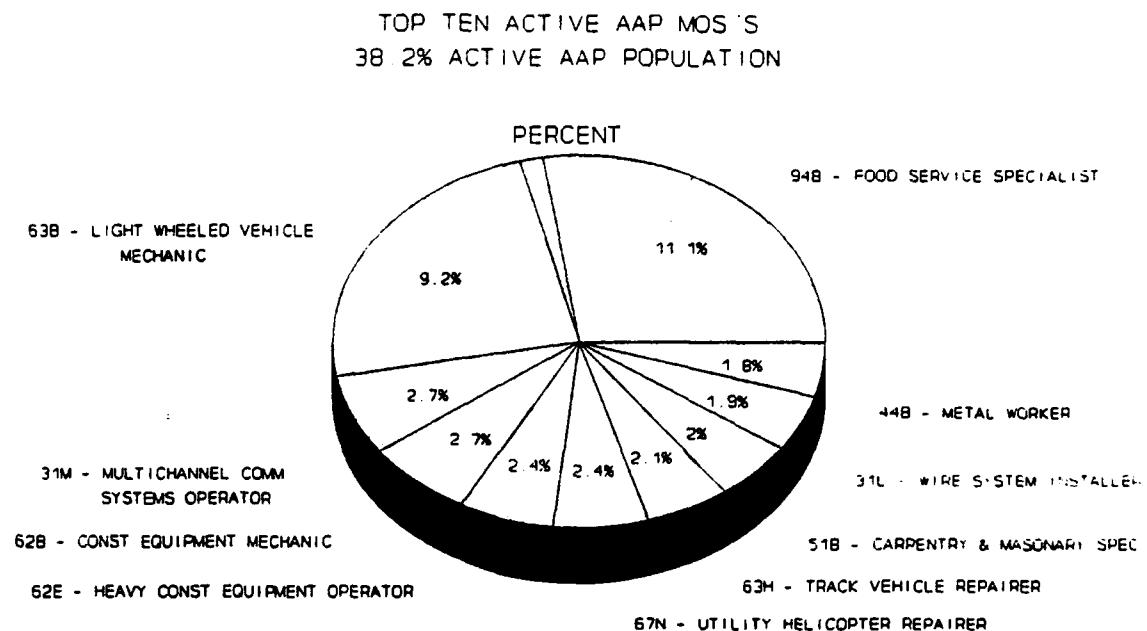


Figure 4. Top Army Apprenticeship Program Occupations

b. The AAP provides a vehicle through which soldiers could document industry-related service acquired skills in a manner acceptable to industry. The AAP serves as a training documentation system for soldiers rather than a long term training program for career soldiers. The AAP adheres to DOL standards for the required number of hours of work and related instruction for a trade. Soldiers serving in eligible MOSs who choose to participate in the AAP are able to earn vocational credentials equivalent to those in comparable civilian occupations. Thus, there is no penalty in terms of job/skill training for serving in the Army. Soldiers who document the required work and training hours, as specified by the DOL and approved by the proponent service school, will receive a certificate showing completion of the AAP. A purpose of the AAP and the DOL certificate of completion is to aid the soldier in the transition from military service into a civilian occupation. A letter of partial completion along with documentation showing

work experience and related instruction completed, should aid a soldier in the transfer from AAP to a civilian sponsored apprenticeship program.

c. The goals for the AAP in Army Regulation 621-5, 25 July 1986, Army Continuing Education System (ACES), are consistent with 10 US Code, Section 4302, and Department of Defense Directive, Number 1322.8, July 23, 1977. The goals are: to enable enlisted soldiers to record and document specific skills acquired on active duty; to assist military supervisors in making management decisions and work assignments based on documented work experience; to assist enlisted soldiers in obtaining civilian employment; and to provide a recruiting incentive for MOS that have related apprenticeship skills.

4. Army versus Civilian Apprenticeship Programs.

a. The AAP, like their civilian counterparts, are administered by the US DOL under the provisions of the National Apprenticeship Act. The Army and civilian apprenticeship programs are similar in many respects. They both:

- (1) Require 2,000-8,000 hours to complete,
- (2) Require 144 hours of vocational instruction related to the trade for every 2000 hours of work experience,
- (3) Have similar standards which are registered with the DOL, and
- (4) Result in the issuance of a certificate of completion of the apprenticeship by the US DOL after the program is completed.

b. Contrast in Programs. There are, however, several important differences in the design and administration of the Army and civilian apprenticeship programs. These differences center around the:

(1) Motivation for Program Development.

(a) Civilian Apprenticeships. Civilian apprenticeship programs are designed to provide intensive skill training through long-term on-the-job training and vocational instruction. Civilian employers are making an investment in training entry level workers. Employers expect, given the right incentives, that apprentices will continue long-term employment with their company. This investment ensures an adequate number of highly skilled and experienced workers for their company.

(b) Army Apprenticeships. Army apprenticeships provide a vehicle through which soldiers document industry-related service acquired skills in a manner acceptable to industry. Apprenticeships programs provide a training documentation system for enlistees rather than a long-term training program for Army careers. The overall training mission of the Army is unaffected by whether or not they offer an apprenticeship program. Individuals will be trained in the basic and advanced skills required to perform their Army occupations. The AAP was created primarily so soldiers serving their country could earn vocational credentials similar to those in comparable civilian occupations. Thus, in terms of vocational credentials, there is no penalty for serving in the Army.

(2) Selection of Apprentices.

(a) Civilian Apprenticeships. Individuals interested in a particular occupation apply or are recruited by a particular employer/union apprenticeship program. Apprentices are selected based on each individual employer/union selection criteria. In most cases, an apprenticeship program is a prerequisite to employment or entry into a particular trade union.

(b) Army Apprenticeships. Individuals are screened prior to entering the Army. Participation in Army apprenticeships is totally voluntary. The most important incentive for participating is the individual's belief that participation in an apprenticeship should assist their military and civilian career. In the case of Army apprenticeships, Army service is a prerequisite of participation in an apprenticeship.

(3) The Structured of Vocational Instruction

(a) Civilian Apprenticeships. Sequential course work of instruction is normally offered in conjunction with a community college or vocational school. The instruction is structured over the entire period of the apprenticeship and is generally scheduled to coincide with related categories of work experience.

(b) Army Apprenticeships. The Army provides basic and Advanced Individual Training (AIT) through a TRADOC school. Each TRADOC school is a proponent for certain Army Occupations Specialties (MOS). Soldiers receive basic and AIT prior to being assigned to their first duty assignment. In most cases, AIT satisfies all of the related instruction required for the apprenticeship program.

(4) The Design of Work Assignments.

(a) Civilian Apprenticeships. Civilian apprenticeships are structured in such a way to ensure that apprentices rotate through all categories of work contained in their work processes. This design assures the development of a well rounded journeyman within a specific period of time.

(b) Army Apprenticeships. Since Army apprenticeships operate as a means for documenting industry-related service, they have no effect on the type of work assignments. Duty assignments are dictated by the need of the service. Therefore, it is not possible to ensure that each soldier will rotate through every category of work contained in their work process.

(5) The Quality of Supervision.

(a) Civilian Apprenticeships. In most cases, the work of a civilian apprentice is supervised by an individual who has obtained a journeyman status for that particular trade.

(b) Army Apprenticeships. Within the Army an apprentice is supervised by the first-level Army or civilian supervisor. Army supervisors have the responsibility of training and directing apprentices and certifying the satisfactory accomplishment of the work process. An Army supervisor may be (but in most cases is not) certified as a journeyman in their trade.

(6) Advancement upon Completion of the Apprenticeship.

(a) The DOL sets similar standards for both civilian and Army apprenticeship programs. After apprenticeship completion, regardless of being civilian or Army, apprentices are issued the same U.S. DOL completion certificate. Once an apprentice have completed his/her program, a fundamental difference exists in advancement potential between civilian and Army apprentices.

(b) Civilian Apprenticeship. Civilian companies recognize the DOL certificate as a gate that apprentices must pass through to be a considered a journeymen. For many trades, apprentice, journeyman, craftsman, and master craftsman are all considered career ladders that a worker must strive to attain. Once apprentices complete their program, they become journeymen, and consequently increase their duties and responsibilities which in turn increases their advancement and compensation potential.

(c) Army Apprenticeships. The Army recognizes the DOL certificate as a course completion. As a certificate, it is entered into a soldier's records and he/she is given credit for bonus points toward promotion. There are, however, no guarantees of increase in responsibilities or promotion. Therefore, limited tangible benefits exists for individuals who participate and complete their apprenticeship and plan to stay in the Army.

c. In summary, the most important difference between civilian and Army apprenticeships is that for civilian programs, the work is structured around the apprenticeship training whereas in an Army program, the apprenticeship is a function of the work performed in an Army MOS. A major drawback of an Army apprenticeship is that there is no assurance that soldiers will receive well rounded job experience. Furthermore, there is no assurance that soldiers who are ambitious, hard working and who honestly record work experience, will be able to complete their apprenticeship program. Another important contrast is that an Army apprenticeship lacks tangible Army incentives for joining and completing the program. With the civilian programs, apprentices gain tangible benefits from joining apprenticeship programs, i.e., employment, learn a trade, entry into an industry or union, increased pay and status upon apprenticeship completion, etc. A positive aspect of the AAP is that the program is much less discriminatory than most civilian programs. Anyone who has been awarded and works in an apprenticeable Army MOS can join the program. In contrast, many civilian apprenticeship programs have stringent enrollment requirements, or union affiliations, that create barriers for entry in a particular industry.

d. The quality of military apprenticeships may always be suspect because of the differences in the design of military versus civilian programs. One means to confront this problem is for the military to support the development of competency-based measures of apprenticeship performance. Competency-based measures of certifying skill developed through apprenticeships would provide uniform standards for occupational skills and promote greater transferability of AAP credentials (military to civilian or visa versa).

CHAPTER 4 - Army Apprenticeship Program Organization

1. Functional Organization.

a. The AAP is functionally organized around four Army organizations: Total Army Personnel Command - Army Continuing Education System (TAPC-ACES); TRADOC DCSPAL office; TRADOC and Major Area Command (MACOM) Education Centers; and TRADOC Schools. Figure 6 graphically depicts the functional relationship within these organizations. The solid arrow line represents the direct line authority and the dashed line represents the indirect line authority that exists between these organizations. As the figure shows, TAPC ACES has direct authority through ACES organizations at MACOM HQ to MACOM education centers. Within TRADOC, the DCSPAL administered the AAP until 1 April 1990, the DCSPAL had authority over the Education Centers located on TRADOC posts, but had to work through the TRADOC Deputy Chief of Staff Training (DCST), TRADOC Deputy Chief of Staff of Combat Developments (DCSCD) to insure that PSSS performs their functions in TRADOC schools. On 1 April 1990 TRADOC functions and staff were realigned. The Education Directorate who previously reported to the DCSPAL now reports to the DCST. Therefore, personnel responsible for administering the AAP did not change, but they currently report to the DCST.

b. The responsibilities within these organization have evolved since the program began in 1976. A summary of their responsibilities, from AR 621-200, is shown in figure 7. The next section details the responsibilities of each of the organizations involved with administering the AAP.

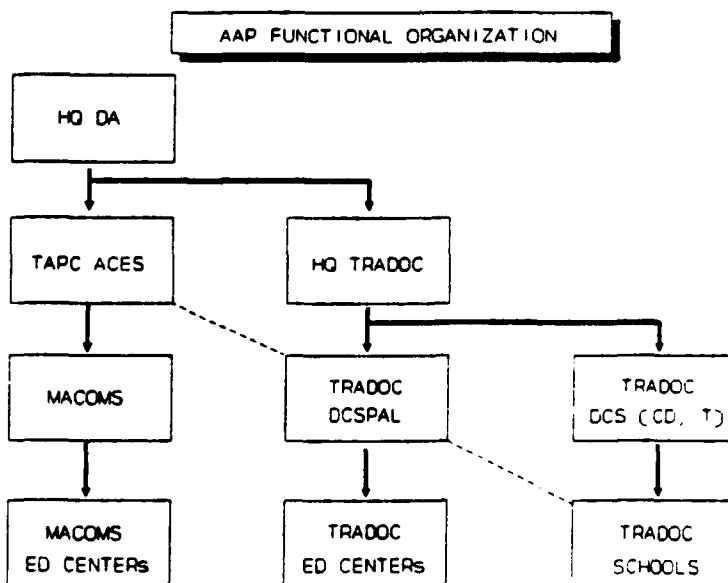


Figure 6. AAP Organization - Functional Elements

TAPC ACEB

1. Establish policy for the AAP;
2. Establish reporting requirements;
3. Recommend and review proposed changes to operation and administration;
4. Acquire Dept of Labor BAT official registration of new AAPs;
5. Publish HQDA pamphlets containing procedures and individual program requirements;
6. Market the AAP through Army-wide channels;
7. Conduct program evaluations.

PBSB

1. Develop and coordinate AAP procedures in their functional areas based on the occupations contained in the DOL bulletin, list of occupation recognized as Apprenticable by BAT;
2. Submit through channels to HQDA:
 - a. Request of DOL, BAT official registration of new AAPs;
 - b. Draft AAP pamphlets for publication and distribution;
3. Review existing AAP pamphlets for and prepare draft revisions annually;
4. Maintain liaison with and support for BAT industry (union and agent) and professional associations;
5. Promote their AAP Army-wide through service schools publications and other media;
6. Furnish requested guidance to determine credit for previous work experience;

TRADESC

1. Manage AAP operations;
2. Implement new/updated programs;
3. Submit request for completions certificates to BAT and forward approved certificates or disapproved request to ESOS;
4. Assist HQDA with program evaluation;
5. Market AAP through TRADOC channels.

ESO/ESS

1. Answer questions and provide information to soldiers who inquire about the AAP;
2. Assist soldiers in completing the AAP application forms;
3. Establish an official AAP file for each applicant;
4. Maintain an official AAP file for AAP participants located on their post;
5. Assist soldiers in completing the forms needed to obtain for credit for previous work experience;
6. Distribute and explain the responsibilities of the apprentice. Instruct soldiers on how to complete AAP log book;
7. Issue a letter to supervisors of an apprentice summarizing their duties and responsibilities.

APPRENTICE

1. Complete the AAP application forms;
2. Complete the forms needed to obtain for credit for previous work experience;
3. Maintain log book of work experience;
4. Update log book of previous work experience.

Figure 7. Army Apprenticeship Program Responsibilities

2. Operating Procedures

a. Responsibilities.

(1) Soldiers.

(a) Entry Application. The AAP applicant is responsible for providing the ESO with the information and documentation necessary to process the enrollment application.

(b) Credit for Previous Experience/Instruction. Once soldiers are enrolled in the AAP, they can obtain credit for military work experience and related job training or instruction gained prior to joining the AAP. To obtain credit for previous work experience, soldiers must recreate their work history and have their previous supervisors sign the related forms to verify experience and then forward this to PSSS representatives.

(c) Maintain Log Book of Work Experience. The apprentice must maintain an AAP log book. This log book records the hours an apprentice has worked in each specific work category. The apprentice's supervisor must sign each record in the soldiers log book prior to it being incorporated into the apprentices official record. The apprentice must report to the ESO/ESS at a AEC or ALC on a quarterly basis providing them with AAP log book updates.

(2) Education Service Office.

(a) Education Counselors provide the personal contact, career, and educational counseling to Army soldiers. They answer questions and provide information to soldiers who inquire into the AAP. They are responsible for assisting soldiers in completing the AAP application forms. They also assist soldiers in completing the forms necessary for obtaining credit for previous work experience and for related instruction. They counsel soldiers on their responsibilities as an apprentice and also provide basic instruction on how to complete the AAP log book. After the soldiers join the AAP, the ESO representatives are responsible for issuing memos to supervisors of each new AAP participant. These memos detail the duties and responsibilities of a supervisor of an apprentice. The apprentice must report to the ESO on a quarterly basis to update their official AAP records with work hours from their AAP log books.

(b) ESO representatives provide the basic record keeping function for the AAP. They establish an official AAP file for each applicant and maintain the files for AAP participants whose duty stations are located on their post. When a soldier's duty station changes, the soldier is responsible for hand carrying the file to the ESO at his next duty station.

(3) Program Sponsor Service School (PSSS).

(a) Maintaining and Expanding the AAP. The PSSS representatives, working in conjunction with the DOL BAT, are responsible for expanding the AAP by including new MOSs into the program. They must work with the BAT officials to establish related instruction and work experience standards for these new MOSs. Also, they must continually monitor changes to MOSs, Programs of Instructions (POI), and work standards that affect MOSs currently in the AAP. The PSSS representative is responsible for developing and revising AAP pamphlets for their schools' MOSs.

(b) Market and Public Relation. The PSSS representative is responsible for marketing the AAP Army-wide through TRADOC schools publications and other media such as post newspapers, newsletters, etc. The role of the PSSS is one of public relations with their civilian industry counterpart in the private sector, management officials, union officials, and professional associations.

(c) Program Requirement Verification. The PSSS representative performs the role of quality control for the AAP. The PSSS furnish the guidance and resolve all questions regarding the awarding of credit for previous work experience. The PSSS verifies the hours of related instruction that a soldier requests. The PSSS representative is the only individual working in the AAP that can award credit for related instruction and work experience.

(d) Completion Approval. Once the ESO believes that a soldier has met all the requirements for the AAP, he/she submits the completion package to the PSSS for verification of all of the AAP requirements. The PSSS recommends to TRADOC that the request for an AAP completion certificate be approved or disapproved.

(4) TRADOC

(a) AAP Management. On 1 MAR 81, the day-to-day management responsibilities for the AAP was transferred from TAPC ACES to TRADOC. Within TRADOC, the DCSPAL became responsible for program management. The TRADOC DCSPAL office is responsible for resolving all soldier, ESO, and PSSS questions/problems regarding the AAP. As the program manager for the AAP, TRADOC is responsible for insuring that the ESOs and the PSSS understand their role within the AAP and that they adequately perform their functions. TRADOC is responsible for developing a system to automate the collection and maintenance of data on AAP soldiers. This data processing function feeds a "management information system" that creates reports for TRADOC, DA and DOL BAT.

(b) Implement New/Updated Programs. TRADOC is charged with the responsibility of developing and implementing apprenticeships for MOS that are not currently part of the program. Also, TRADOC must insure that existing apprenticeship programs are updated. TRADOC must initiate program updates where the DOL BAT have changed program requirements or standards and facilitate program updates for those apprenticeship programs that have undergone considerable changes in training, work, or operational requirements.

(c) Request AAP Completions. TRADOC is responsible, with input from the PSSS, for approving or disapproving all request for AAP completion certificates. If the request is approved, TRADOC will forward the request for a completion certificate to DOL BAT. Then, TRADOC will forward the approved certificate or disapproved request to the requesting ESO. TRADOC's role is to approve or disapprove the request for AAP completion certificates.

(d) Assist TAPC ACES with Program Evaluation. TRADOC is responsible for assisting the TAPC ACES with program evaluation (i.e., determining whether the AAP is achieving its intended goals).

(e) Market AAP through TRADOC Channels. TRADOC is responsible for directing and insuring that the AAP is marketed within TRADOC through individual TRADOC schools publications and other media, such as TRADOC post newspapers, newsletters, etc.

(5) TAPC ACES.

(a) Establish policy for the AAP. The primary role of TAPC ACES is to provide policy guidance and direction for program administrators. They are responsible for publishing DA pamphlets and regulations containing procedures and individual program requirements that govern AAP operations. TAPC ACES establishes current reporting requirements for the AAP. TAPC ACES recommends and/or reviews proposed changes of operation and administration to TRADOC.

(b) TAPC ACES must maintain a liaison with the Department of Labor Bureau of Apprenticeship to acquire official registration of new apprenticeship programs for Army MOSSs.

(c) TAPC ACES is also responsible for determining the overall marketing strategy for the AAP. TAPC ACES is responsible for directing and insuring that the AAP is marketed within MACOMS through individual Education Centers to MACOM post newspapers, newsletters, etc.

(d) The Army is committed to having soldiers who continue their educational pursuits while in the service. Education programs directly support the Total Army Goals by laying a foundation of skills and values fundamental to military learning. Through the achievement of individual educational goals, soldiers acquire the academic skills required to excel. It is the responsibility of ACES professionals to assist in developing those goals. TAPC ACES is responsible for conducting program evaluations to determine if the AAP is accomplishing the intended goals of the program.

b. Current Operating Tasks. There are four basic tasks in the documentation process required to administer the AAP. These tasks are: to complete the AAP application; verify previous work experience; maintain daily AAP work records; and request AAP completion certificates.

(1) Complete the AAP Application. Figure 8 diagrams the first AAP administrative task - completion of the AAP application. The ESO provides information to soldiers who inquire about the AAP at the education center. The ESO explains the duties and responsibilities of an apprentice and answers questions regarding the program. The ESO assists the potential apprentice with completing the AAP application form (DA Form 4409-R). Furthermore, the ESOs are responsible for assisting soldiers with completion of the section of the form necessary to obtain credit for related instruction. To obtain credit for previous instruction, the ESO sends the completed DA Form 4409-R and a cover letter to the PSSS representative who is a proponent for that soldier's MOS. The PSSS will determine how much credit a soldier should be given for related instruction gained prior to joining the AAP. A copy of the cover letter is sent to TRADOC. The PSSS determines the appropriate amount of hours of related instruction received and awards credit for previous instruction. The PSSS sends a memo of award to the ESO and sends a copy of the memo and DA Form 4409-R to TRADOC. At the completion of this task, the figure shows the documents being held by each organization.

AAP TASK

- 1 COMPLETE AAP APPLICATION
(DA FORM 4409-R)

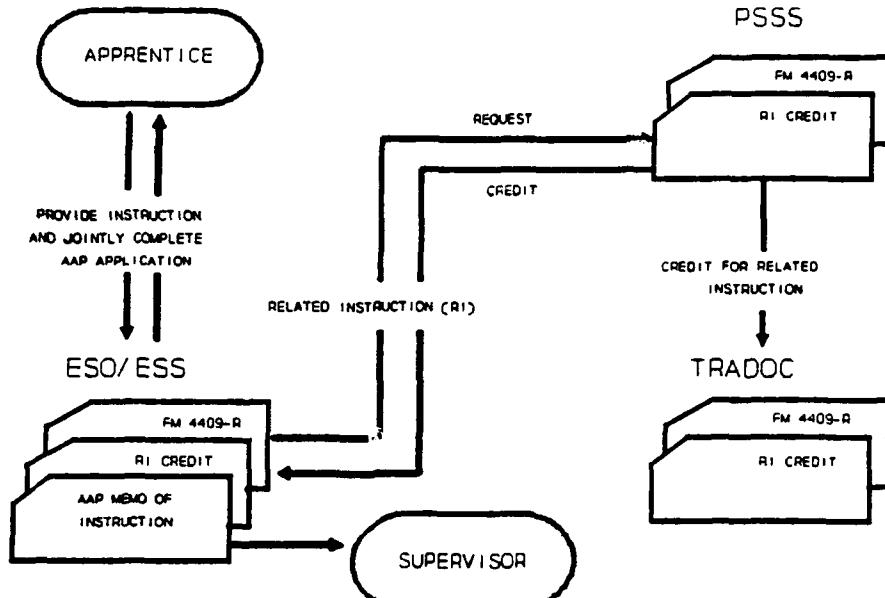


Figure 8. Task #1 - Complete AAP Application

(2) Verification of Previous Work Experience.

Figure 9 diagrams the second AAP administrative task which is related to task 1, verification of previous work experience. A new apprentice can gain up to 50 percent of the work experience hours required for the program through credit for previous work experience. At the time of application, the ESO will assist the soldiers completing sections I and II of DA Form 4409-1-R (AAP Verification of Previous Work Experience). The ESO must distribute the form to the soldiers previous supervisors to obtain a signature that verifies the soldiers claim for prior work experience. This means that the form must be distributed to all previous supervisors. Of those AAP entry soldiers surveyed in phase II, the average time in service prior to joining the AAP was nearly 7 years. If this were true for all soldiers entering the AAP, this would mean that the ESO would need to distribute copies of DA Form 4409-1-R to a minimum of at least 2 to 3 supervisors per AAP applicant. If the new apprentice is unable to obtain the signature from a previous supervisor, either because the supervisor has changed duty stations or ETS from the Army, then no credit will be awarded. Once the previous supervisors have signed the related forms, the forms are returned to the ESO, and then forwarded to the PSSS for awarding of credit.

for previous work experience. The PSSS validates the form to determine the accuracy of the record and awards the credit for previous work experience. The PSSS distributes the DA Form 4409-1-R and a memo award to the ESO with a copy furnished to TRADOC. At the completion of this task, the figure shows the documents being held by each organization.

AAP TASK

2. VERIFICATION OF PREVIOUS WORK EXPERIENCE (DA FORM 4409-1-R)

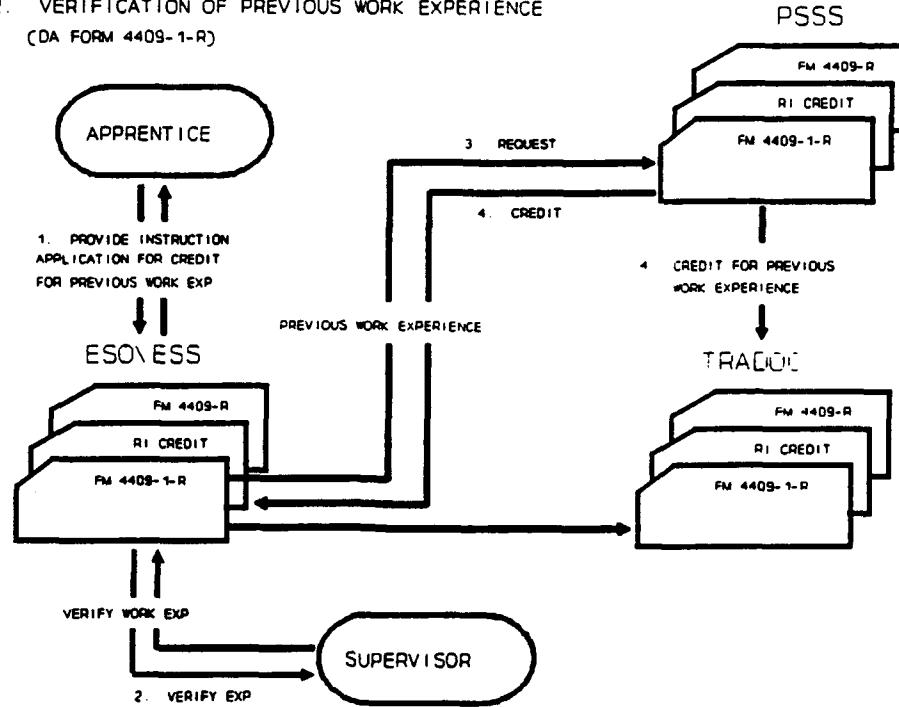


Figure 9. Task #2 - Verification of Previous Work Experience

(3) Maintain AAP Daily Work Record. Figure 10 diagrams the third AAP administrative task, maintaining the AAP daily work log, DA Form 4567-R. An Army Education Center staff member will show an apprentice how to complete and maintain their daily work record. The apprentice is primarily responsible for recording his/her work experience, in various work process/categories, on a daily basis into an AAP work log. The apprentice has his/her supervisor initial-off on the daily work record. Furthermore, the apprentice must report to the ESO on a quarterly basis to update his/her official AAP file. The ESO uses the soldier's daily work logs to update his/her DA Form 4568-R (Apprentice Periodic Work Experience Record). The ESOs update apprenticeship records in TRADOC AAP files annually. When apprentices' duty station changes, they pick-up their official AAP records from their current ESO during their normal out-processing and hand-carry them to the next duty station ESO.

AAP TASK

3. MAINTAIN AAP DAILY WORK EXPERIENCE RECORD (DA FORM 4567-R, 4568-R)

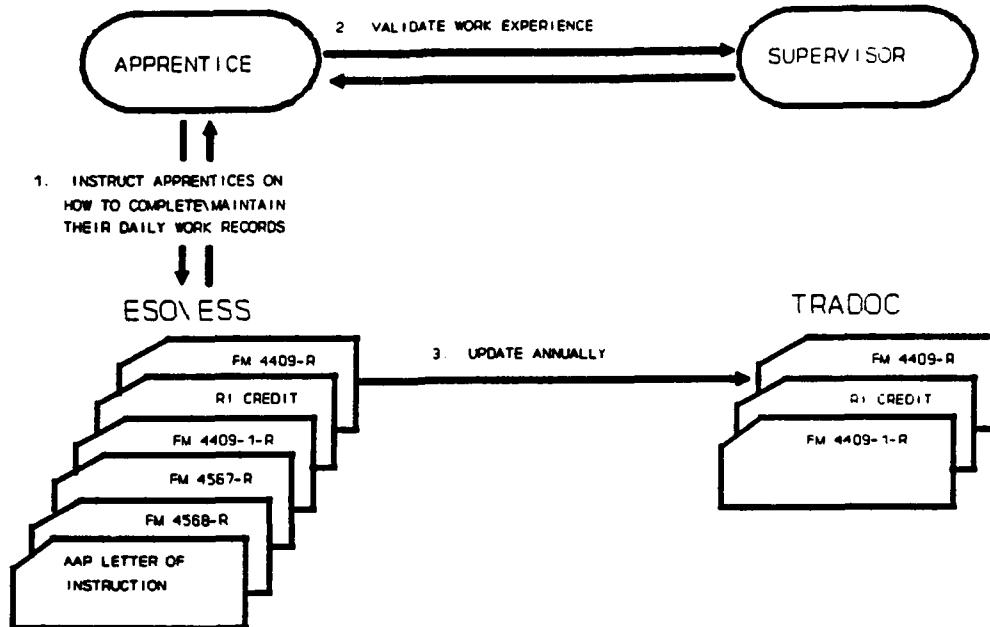


Figure 10. Task #3 - Maintain AAP Daily Work Experience Record

(4) Request an AAP completion certificate. Figure 11 diagrams the fourth AAP administrative task, requesting an AAP completion certificate. Once a soldier believes that he/she has met all of the requirements for the AAP, the ESO will determine if all of the requirements are met. If they have, the ESO will send all of the documents listed in the figure to the PSSS. The PSSS will verify that a soldier meets the requirement for a completion certificate (i.e., the required number of hours of related instruction and work experience). If the apprentice has met all of the requirements, the PSSS will forward a completion request to TRADOC recommending final approval. TRADOC performs the final check to insure that the apprentice has met the requirements of the AAP. TRADOC will then forwarded the request for completion certificate to DOL BAT.

(5) The diagrams presented are meant to illustrate the current document flow; the amount of redundant documentation in the system, and the agencies involved in obtaining the AAP completion certificate. Multiply this process by the more than 23 thousand active AAP participants, and you can gain an appreciation for the significant amount time and effort required to administer the program.

AAP TASK

4. REQUEST AAP COMPLETION

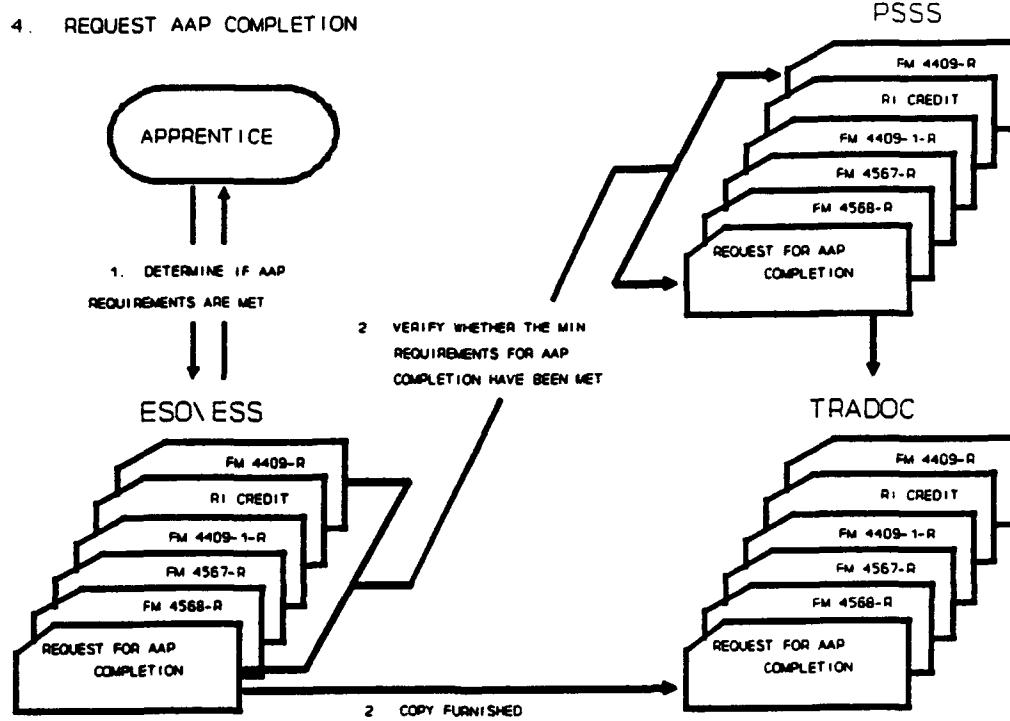


Figure 11. Task #4 - Requesting/Obtaining AAP Completion Certificate

CHAPTER 5- Current Deficiencies of the AAP

1. PSSS/ESO Response.

What are the current deficiencies/problems with the AAP?

TRAC-FBHN solicited comments, from both PSSSs and ESOs, regarding the "problems their organizations have encountered with the AAP" and "recommended changes needed for the AAP." We requested comments from all PSSSs and ESOs. After two memorandums and a number of telephone calls, we were unable to obtain comments from ESOs located in Europe. We received resource worksheets from 75 of the 93 ESOs listed in DA PAM 621-200. Twenty-eight of the 75 ESOs provided comments regarding the problems they have encountered with the AAP. We requested and obtained written comments and resource worksheets from all 11 AAP PSSS. TRAC-FBHN conducted a content analysis on their responses. The five basic problem areas, listed in order of frequency, are shown in table 2.

Table 2. ESO and PSSS Identified Problem Areas

# of Comments	Problem Area
22	AAP Documentation
14	Feedback on AAP Soldiers
13	Commitment for the AAP
10	Program Completions
3	AAP Resources

a. PROBLEM 1: Inadequate AAP Documentation.

(1) The most frequent concern voiced by PSSSs and ESOs dealt with the area of documentation (table 3). PSSSs and ESOs responded that the DA pamphlets and regulations governing the AAP are outdated. The DA is responsible, with input from TRADOC, for updating DA pamphlets and regulations. Army Regulation 621-5, Army Continuing Education Services (ACES) and DA pamphlet 621-200, AAP Procedural Guidance are current documents, updated within the last four years. There seems to be a concern that the DA pamphlets containing individual program requirements are not current documents. Many of the comments that came from ESOs voiced a concerned that the DA PAMs governing individual programs do not reflect current program requirements.

Table 3. First Problem Area - AAP Documentation

Frequency	Documentation Deficiencies
8	DA PAMs, Regulations are outdated
2	Excessive time needed for record keeping
1	Schedules for related instruction need to be updated
1	Delays in getting AAP certificate or a letter showing hours completed (>9 months)
	Errors
5	- Errors in AAP records
2	- Lost AAP logbooks, soldier records
2	- Forms for application and credit for previous experience need revision
1	- Inaccurate input from supervisors

(2) Another concern was that the current process requires too much time for the basic record keeping function. ESOs are overburdened with paper work required to administer the program. Also, the amount of time needed to verify a request of credit for related instruction, prior work experience, or current WIP was excessive due to errors in AAP records, inaccurate information from supervisors, and lost or misplaced files. The role of the PSSS in many schools is not a particularly high priority item. As a result of these factors, there are numerous delays in getting completion certificates. One ESO commented that once he submitted the forms, "it took more than nine months to get a AAP certificate". Also, on the AAP exit survey, a few soldiers commented that as they approached leaving the Army, they had no "official" documentation of their work while in the Army to show a potential future employer.

b. SOLUTIONS:

(1) Standard Operating Procedures (SOP) for ESO/PSSS. The entire area of documentation is currently a problem. No operating guidance exists for TRADOC schools and educations centers other than a very general regulation on the duties and responsibilities of the PSSS and ESO. TRADOC needs to develop SOP that outlines duties/functions, required forms (how to complete) and information flow for both the PSSSs and the ESOs. This should help to alleviate some of the errors and the excessive time needed for record keeping.

(2) Marketing Brochure. Develop, in conjunction with USAREC, an AAP marketing brochure.

(3) Updating DA PAMS. To alleviate the problems with updating the DA PAMS governing all of the individual programs, ESO/PSSS at Ft Knox recommended that PSSS load their DA PAMS into the PLATO system. The PSSS could then make changes as they occur, and other ESO/PSSS would have immediate access to the latest version of the DA PAMS.

(4) Apprentice Handbook. TRADOC should develop an Apprentice Handbook. The handbook should detail the duties and responsibilities of an apprentice, an AAP supervisor, and list of where to obtain help from TRADOC schools Points Of Contact (POC).

(5) Automated Systems. AAP data is currently being automated at TRADOC headquarters to build reports for TRADOC and DA management. The current automation process has not alleviated the inordinate amount of document flow (see chapter 4). The current automation system is used more as a management information system rather than a means of capturing data and maintaining soldier records. The whole area of AAP automation has developed contrary to the way automation normally develops. Generally, automation is used to capture and maintain records at the user level and evolves into a management information system. Bottomline is that the current automation procedures need to be redesigned and upgraded to enhance administrative reports for TRADOC, PSSS, MACOM, and DA management.

(6) Apprentices Official File. Soldiers should not have the responsibility for transferring official AAP files from duty station to duty station. Currently, when a soldier's duty station changes, the soldier is responsible for hand carrying their official AAP file to the ESO at his next duty station. Within current operating procedures this is their only record of credit for related instruction and work experience. ESO and PSSS representatives responded that this has in the past created a number of problems in that soldiers have lost part or all of their official AAP file. This creates an additional burden on the ESO and the apprentices to recreate lost work records, or related instruction; supervisors to review and verify whether a soldiers actually performed that work; and on PSSS to verify whether soldiers had the capacity to obtain the related instruction and work the hours requested.

(7) AAP certificates and letter of partial Completions. Every soldier who has participated in the AAP whether they have completed the program or not, should receive a letter before they end their term of service that details the type of related instruction, work experience they have received while in the AAP.

c. PROBLEM 2: Lack of AAP feedback on soldiers who ETS.

(1) The second most frequent problem, as identified by PSSS's and ESO's, was the lack of feedback on the effect the AAP has on soldiers-turned-civilian careers. During personal interviews with education center counsellors, one stated that it was "impossible to sell the program because he had no idea what happens to soldiers after they separate from the Army." Many education center counsellors have not seen any tangible benefits gained by a soldier from participation in the AAP.

(2) One of the goals of the AAP, as stated in the Department of Defense Directive number 1322.8, is "to assist enlisted soldiers in obtaining civilian employment." Even though this is a commendable goal, there is no mechanism in place to determine whether the program is currently accomplishing this goal. AAP management needs a means of obtaining continuous feedback from AAP participants who have separated from the program and the Army.

d. SOLUTION: AAP Follow-up Survey.

(1) At the beginning of the study process, one of the deficiencies of the AAP, that was identified by the study agent was an inadequate amount of feedback about soldiers who leave the Army with either an AAP completion certificate or a letter of partial completion. Consequently, the overall survey effort was designed as a "pseudo longitudinal" survey of soldiers' attitudes and perceptions of the value of the AAP. The purpose of the survey design was to measure attitudes when soldiers joined the AAP; when they separated from the Army, as well as a follow-up survey at different time intervals after the soldiers separated from the Army. The follow-up survey is an essential component of the AAP Evaluation, as it is necessary for determining if soldiers have actually benefited from participation in the AAP in terms of marketability of job skills (i.e., type of jobs secured, the time needed to obtain civilian employment, and their starting pay compared to co-workers). The follow-up survey will also determine the degree of civilian industry acceptance of the military apprenticeship programs.

(2) The follow-up survey will provide data required to evaluate whether soldiers are currently benefiting from participation in the AAP and thus accomplishing one of the intended purposes of the program. Furthermore, data collected by the follow-up survey can be used to evaluate future program effectiveness. Survey data collected will allow for comparisons between AAP participants and Non-AAP participants to determine if there are differences in: the quality of post-Army employment; the time needed to secure employment; starting pay; and

unemployment compensation. The data, particularly on Non-AAP participants, will provide a baseline from which to compare future AAP participants.

(3) The results of the follow-up survey will be reported separately through a contract effort between the Veterans Employment and Training Office and Meridian Corporation.

(4) AAP Feedback System. AAP management should implement a system of providing continuous feedback on AAP soldiers. The following two methods could be used to gather the information needed to evaluate program operations and to determine program effectiveness:

(a) Program Evaluation. Soldiers who have participated in the AAP should complete a short evaluation of the AAP when he/she either drops the program or separates from the Army.

(b) Program Effectiveness. Those soldiers planning on separating from the Army who have received a full or partial AAP completion, should be asked to complete and return a preprinted one or two page survey instrument. The design should be such that all an individual would have to do is complete the questionnaire, fold it, and drop it in the mail to TRADOC DCST. The purpose of this questionnaire is to provide ongoing feedback (i.e., type of job, length of time it took to find employment and amount of compensation received).

(5) As table 3 displays, this feedback data could be compared to data from the follow-up survey on a yearly basis to determine if AAP has effectively provided soldiers with tangible benefits, (i.e., assisting soldiers in obtaining civilian employment). This type of feedback can provide a very valuable measure of program effectiveness. The aggregate comparisons of feedback could be used to determine whether the program is meeting its goal of assisting soldiers to secure civilian jobs. The comparison of soldier feedback within industries could be used to determine the degree of civilian industry acceptance of the AAP. If, for instance, the time needed or the type of jobs obtained industry are not statistically different when comparing AAP soldiers to soldiers who have not participated in the AAP, then, one could postulate that soldiers are not benefiting from participating in the program. One reason for this conclusion may be that a particular industry has not fully accepted a soldier's credentials from the Army. This type of data could be used on a case-by-case basis by AAP management to identify which industries need further investigation. If a particular industry is shown not to accept AAP credentials, then management should consider working with that industry to gain acceptance of the AAP or eliminating that particular MOS from the AAP.

Table 3. Program Measure Comparison of Feedback Data

INDUSTRIES	SOLDIERS	
	AAP	NON AAP
FOOD SERVICES	a	b
VEHICLE MECHANICS		
COMMUNICATION OPERATORS		
CONSTRUCTION TRADES		
Total	c	d

e. PROBLEM: Lack of Commitment to the AAP.

(1) In general, the comments received from ESO and PSSS regarding the concept of the AAP were favorable. They seem to support the need for the AAP. "AAP should help soldiers in the civilian job market." However, the third most cited problem, and probably the most pervasive problem to resolve, is the perception of the lack of commitment/support for the program at all levels of management within ACES ESOs and TRADOC (table 5). The following conclusions about commitment to the AAP are based on the comments received from ESOs and PSSS, and through conversations with representatives from TRADOC.

Table 5. Third Problem Area - Commitment for the AAP

Frequency	Deficiencies In Commitment
8	Lack of Commitment to AAP at all Levels (ACES, TRADOC)
1	No Support for AAP in USAEUR
4	Civilian Sector Does Not Recognize AAP Credentials

(2) The lack of commitment at the ESOs is a direct result of the perceived lack of support by TAPC ACES. Counselors have seen no new initiatives by DA for the program, no Army wide marketing of the AAP, no new policies or procedures, no guidance for documentation problems, nor policy changes in the automation of AAP records, etc. TAPC ACES appears to have taken a laissez-faire attitude towards the program and policy direction.

(3) There are some inconsistencies in the organization, responsibilities, and management of the AAP. Since program inception, TAPC ACES has little by little transferred functions and responsibilities regarding the AAP to TRADOC. One of these functions is the management of day-to-day operations of the program. This transfer was done regardless of the fact that TRADOC does not have functional authority for over the majority of personnel administering the program, (i.e. all the ACES are not located on TRADOC posts).

(4) The lack of commitment to the AAP within TRADOC may result for a combination of the: inability to determine whether the program is effective; lack of knowledge and understanding of the AAP by school leadership; and organizational problems associated with the AAP. This study is the second evaluation in the 13 years that the program has been operating. TRADOC has not had information needed to convince TRADOC school management of the value of the AAP. Inadequate documentation with regards to the AAP has made it difficult for anyone, even school personnel, to fully understand what the AAP is all about. Furthermore, the lack of commitment within some TRADOC schools can be traced to the fact that HQ TRADOC has not applied pressure to individual schools to resource and support the program. This can be partially explained through organizational problems (i.e., TRADOC DCSPAL office functionally has had no direct line authority to task TRADOC schools). The DCSPAL office did not have the authority to insure that TRADOC schools will staff and support the role of the PSSS for the AAP. Furthermore, the role of the AAP PSSS is not defined in the current school model. As a result, some schools are performing the function of the PSSS while others are not staffing the function, and consequently, local education centers have picked up their duties.

(5) Society encourages a college education for our children and therefore a bias has developed against general blue-collar versus white collar jobs and vocational versus academic instruction. Another possible explanation for the lack of ACES commitment is that ACES as an organization, is predominately education orientated i.e., higher education, junior colleges, colleges, universities. ACES may not see the need for alternatives to higher education, subsequently, do not recognize the value of vocational type training. Thus, ACES is perpetuating the biases for academic versus vocational instruction.

f. SOLUTION:

(1) The AAP management should reemphasize the need for "apprenticeships" and the skills needed for future, (i.e. the works of DOL in Apprenticeship 2000 and Workforce 2000) to TRADOC schools and MACOM ACES.

(2) A memo from the Commander General (CG) TRADOC should be sent to TRADOC schools to reemphasize the need of PSSS support for the program. A DA and TRADOC representative should brief all TRADOC school commandants on the results of the study and solicit their support.

(3) There is a need for the day to day managers of the AAP within TRADOC to have functional and tasking authority over individuals responsible for conducting the PSSS functions within TRADOC schools. Also, there is a need to incorporate the role of the PSSS into the current school model.

g. PROBLEM 4: Soldiers are unable to complete the AAP.

(1) The next most frequent problem that was identified by ESOs or PSSSs was that soldiers are unable to complete the program (table 6).

(2) Table 7 identifies the ten MOSs that have the largest number of soldiers actively participating in the AAP. The number of soldiers in these ten MOSs represent nearly 40 percent of all of the program participants since the program began in 1976. In these ten MOSs, there has been a total of more than 29,000 AAP participants. However, only 414 AAP completions are recorded, this represents a mere 1.42%. Completion rates for the AAP are very low.

Table 6. Forth Problem Area - Program Completions

Frequency	Deficiencies - Program Completions
5	Soldiers unable to complete the AAP
3	- Soldiers promoted to a supervisor before they complete can the AAP
2	- Unable to accomplish duties required for WIPs (duties not required or done by contractor)

(3) One of the reasons for so few completions is that most apprenticeable MOSs require soldiers to log 8000 hours of work experience to complete the AAP. By regulation, the maximum number of hours a soldier can log towards completion of the AAP is 6 hours per day. Through rudimentary calculations the limit that a soldier can log in a single year would be 1,560 hours, working at peak efficiency. When deducting normal leave and holidays, a soldier can log a total of 1,374 hours per year,

under ideal condition. It is unrealistic to believe that a typical soldier can log a total of 1,374 hours of work experience a year because of other demands for his/her time (i.e. related instruction, duty, details, physical training, etc.). Even if a soldier could log 1,374, it would still take nearly 6 years to complete the AAP.

Table 7. Completion Rates for the Ten Largest AAP MOSs

MOS	AAP			COMPL- ETIONS	CURRENT ELIG.	% AAP PART OF ELIG.	% COMPL OF PART
	ACTIVE	INACTIVE	TOTAL				
948	3,123	4,926	8,049	254	17,944	17.40%	3.16%
638	2,580	4,526	7,106	42	18,752	13.76%	0.59%
31M	766	771	1,537	15	8,189	9.35%	0.98%
62B	761	1,548	2,309	43	4,013	18.96%	1.86%
62E	667	1,177	1,844	5	2,653	25.14%	0.27%
67N	662	1,110	1,772	20	2,477	26.73%	1.13%
63H	596	1,391	1,987	19	5,316	11.21%	0.96%
51B	560	1,094	1,654	0	2,573	21.76%	0.00%
36C	529	842	1,371	2	4,233	12.50%	0.15%
448	511	994	1,505	14	1,410	36.24%	0.93%
TOTAL	10,755	18,379	29,134	414	67,560	15.92%	1.42%

(4) Another factor that affects AAP completion is that if a soldier spends at least 6 years on active duty in the Army, it is likely that he/she will be promoted to an E5 or an E6. The duties and responsibilities of a soldier changes considerably as a soldier progresses up the enlisted ranks. Depending on MOS, as an E5 or an E6, a soldier will be performing at a supervisory level of work rather than at a technical level.

(5) Also, another problem that impedes the progress of soldiers completing the AAP is the amount of work that the Army currently contracts out. Soldiers do not have the opportunity to obtain work experience in all of the areas required by the AAP.

(6) A sample of AAP soldiers were surveyed as part of the phase II. It was discovered that a higher percentage of soldiers had already reenlisted prior to joining the AAP. Figure 12 shows that soldiers were in the Army an average of slightly over 7 years before they joined the AAP. This suggests that:

(a) Soldiers are not getting AAP information soon enough in their first term of enlistment and/or;

(b) Soldiers possibly don't understand the relevance of participating in the AAP until they have worked in their MOS for awhile. Once soldiers have reenlisted they are attempting to gain retroactive credit for hours of work experience already completed.

(7) Higher reenlistment rates prior to entering the AAP adversely affect AAP completion rates, the administrative burden on the PSSS, and the retention value of the AAP. Soldiers need to get information and join the program early in their first enlistment term to increase the likelihood of completing the program. Many of the soldiers who are currently joining the AAP have already reenlisted and are attempting to gain retroactive credit for work experience which they have already completed. This process puts an additional burden on the PSSS because the PSSS must verify and validate the reconstructed work records for these AAP soldiers. This is one of the most time consuming AAP administrative function. A result of the AAP Entry Survey was that 71 percent of soldiers entering the AAP stated that completion of the program would be an important factor affecting their decision to reenlist. In summary, in order to increase AAP completions, reduce the burden on the PSSS and to maximize the retentive value of the AAP, the Army needs to encourage more soldiers to join the program early in their first enlistment and preferably, after their advance individual training.

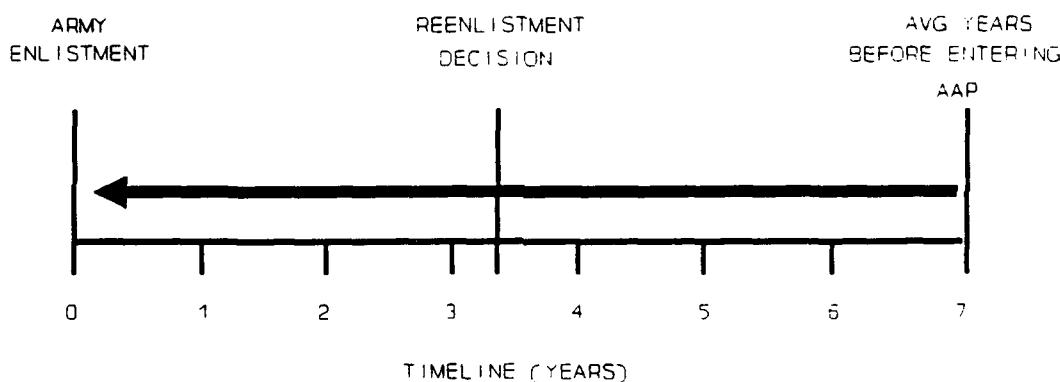


Figure 12. Time-line for Joining the AAP
Source of Data: AAP Entry Survey

(8) Finally, an AAP completion is much different than a completion of other ACES programs because of the amount of effort/time involved. The amount of time involved to complete the AAP is comparable to the time needed to complete a university degree. Therefore, it is erroneous to compare AAP completions to completions in other ACES programs such as Basic Skills Education Program or Career Soldier Education Program, High School Completion Program, etc. The amount of time and effort involved in completing these programs is not equal.

h. Solution:

(1) Work assignments cannot be changed just to insure that soldiers have the opportunity to complete the AAP. However, more can be done to ensure that soldiers understand the considerable amount of time and effort involved to complete the program. Currently, one of the PSSS routinely gives a presentation to graduating AIT classes and provides AAP applications to soldiers. Ideally, the PSSS should provide a short briefing to every graduating AIT class whose MOSs are a part of the program. At that time, the PSSS should give them the opportunity to complete the AAP application. This would front-load the AAP with "newer" soldiers (i.e., soldiers just completing AIT), because these soldiers have greater success at getting the time and the exposure needed to complete the program. A recommendation of is to standardize this process, so that it is a requirement for all PSSS to explain the benefits (as identified by the study) to all new soldiers and give them the opportunity to complete the AAP applications forms prior to them proceeding to their first duty station.

(2) Additionally, with the problem of contracting work out, the PSSS should review the current work schedules to insure that a soldier, during the course his career, has the opportunity to perform all of the work required. If soldiers are unable to complete all the work required, then TRADOC should consider not offering the AAP for that particular MOS.

i. PROBLEM 5: The requirement associated with the AAP has not been resourced. The fifth most frequent problem, as identified by PSSS's and ESO's, was that DA/TRADOC has not resourced with personnel the operation of the AAP. However in 1981, when the AAP day-to-day administrative responsibilities were transferred from DA to TRADOC, DA/TRADOC staff members conveyed that personnel slot were transferred to administer the program. The only evidence to support this was a memo dated 26 February 1981, transfer of one civilian slot from HQDA to TRADOC. If other personnel slots were allocated to TRADOC for administering the AAP, then it appears that the schools/ESOs absorbed those positions through personnel cuts, or they are being used for other functions. An audit of the personnel slots associated with the program is beyond the scope of this study, therefore was not conducted. Many PSSS representatives conveyed that among their responsibilities, AAP duties have the lowest priority and in many cases are conducted on a catch-as-you-can basis. Bottomline: The present structure of the AAP is not adequately resourced to fulfil all elements of current or recommended policy.

j. Solution.

(1) Organizationally, there needs to be established an accountability for the personnel slots allocated for the AAP at TRADOC schools. One of the PSSS representatives commented that the TRADOC schools need to request that the Table Distribution and Allowances include personnel slots for the AAP PSSS. The function of the PSSS needs to be incorporated into the current school model.

(2) TRADOC needs to apply pressure on TRADOC schools to perform the AAP functions. In those schools that are not performing their PSSS function, a memo from the CG of TRADOC should be sent to apply pressure to insure that TRADOC schools staff and perform duties of the PSSS.

2. AAP Supervisor Response.

a. Questionnaire Design. At the request of the TAPC-ACES, TRAC-FBHN conducted a telephone survey of AAP supervisors to determine their attitudes and perceptions towards the AAP. The questionnaire that was used was developed, then staffed through the DCSPAL and TAPC-ACES (Appendix C). The questionnaire was designed to take no longer than a maximum of ten minutes a supervisor's time to complete. The purpose of the telephone questionnaire was to gain feedback from soldiers who supervise apprentices in the AAP. It was not intended to be a definitive statistical sample, but a means of providing basic insights into supervisors' opinions of their apprentices. Given the time and support available, TRAC-FBHN questioned 28 AAP supervisors. The questionnaire included five separate sections: supervisor knowledge of the program; work assignments; apprentice honesty; apprentice work characteristics and supervisors impressions of the program and potential improvements.

b. Results.

(1) Supervisor Knowledge. The first question asked was how familiar was each supervisor with the AAP. The interviewer, based on their responses, ranked their knowledge of the AAP. A ranking of 1 corresponds to being very knowledgeable and a 5 is not at all knowledgeable about the AAP. As figure 13 shows, fourteen percent (4/28) were ranked as being not very knowledgeable of the program. In those instances where a supervisor hesitated and seem to lack knowledge of the AAP, the interviewer probed to determine if they had seen any documentation regarding the AAP. Nearly all of the 28 AAP supervisors questioned had not received a memo from the ESO. This memo details their responsibilities as AAP supervisors. AR 621-5, dated 1 Apr 89 did not require the ESOs to submit memos to supervisors of apprentices detailing their responsibilities.

However, DA PAM 621-200 does require memos sent to apprentices supervisors. Therefore, there is a disconnect between the DA PAM and the AR governing the AAP. Nearly 68 percent of the supervisors stated that they knew what their responsibilities were as an apprentice supervisor. The rest however, weren't sure how their responsibilities differed from other soldiers who work for them. When asked where they gained their knowledge/information on the program, the most frequently mentioned source was their Apprentices, followed by the Army Learning Center and the Education Center, Squad leaders, Advanced Individual Training and NCO Professional Development.

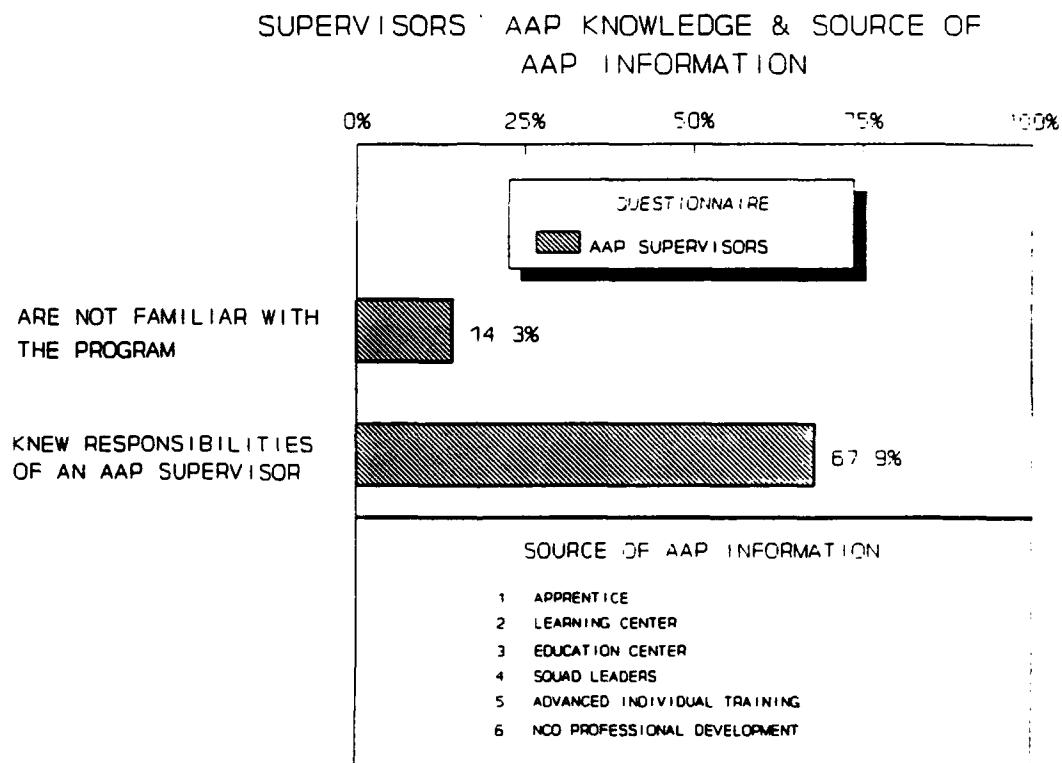


Figure 13. AAP knowledge and Information

(2) Work Assignments. One of the goals of the AAP is to assist military supervisors in making their decisions and work assignments based on the AAP soldiers' proof of their previous work experience on their AAP work schedules. Supervisors were asked whether they looked at their apprentices' work schedules to determine work assignments. A majority, 53.6 percent, do use the AAP work schedules to schedule work assignments (figure 14). However, even more, 85.7 percent, depend on their apprentices to make them aware of specific work experience needed to complete AAP.

HOW AAP SUPERVISORS ASSIGN WORK

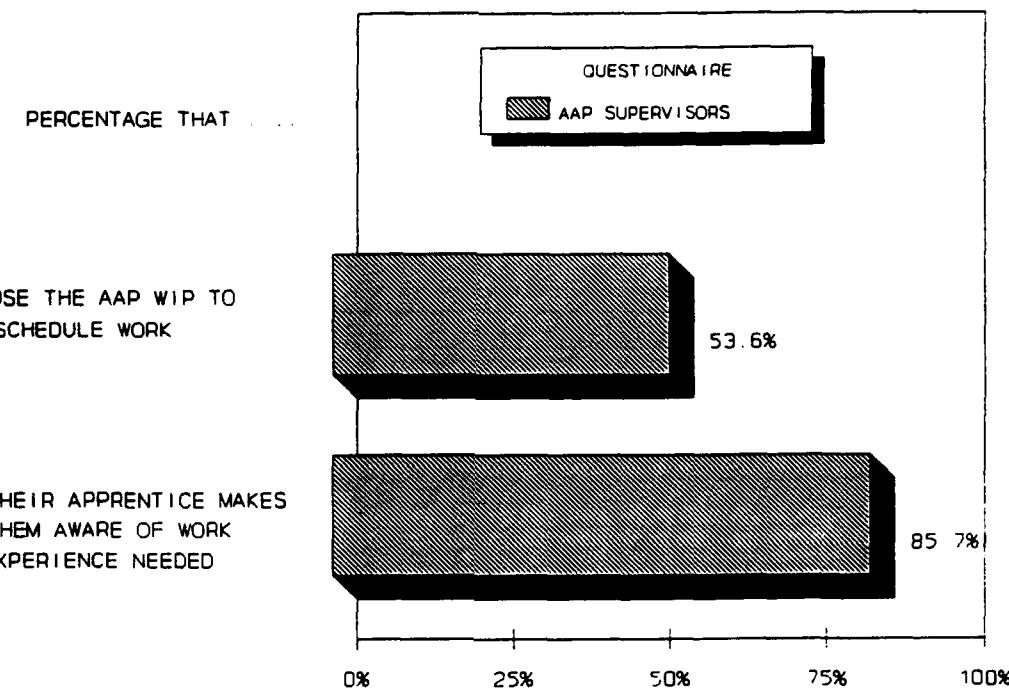


Figure 14. Information AAP Supervisors Use to Assign Work

(3) Apprentice Honesty. Since the start of this study, much skepticism has been raised about soldiers' truthfulness in completing their AAP work schedules. To determine supervisors opinions of apprentice honesty, the interviewer asked supervisors to rank their apprentices' honesty at recording AAP work hours. The results of this question are displayed in figure 15. Three of the supervisors (10.7 percent) stated that their apprentices were not very honest or not at all honest when they recorded their work entries. The interviewer explored the honesty issue with these three supervisors to determine the cause and how they dealt with the problem. One of the primary causes of apprentices being less than totally honest is that they are unable to complete some of the work that is required in the AAP work schedules. These three supervisors, because of this problem, seem to be willing to be more lenient with signing-off on their apprentices' logs. However, they all stated that they never signed off on logs that they thought were falsified.

HOW HONEST ARE APPRENTICES AT RECORDING WORK HOURS?

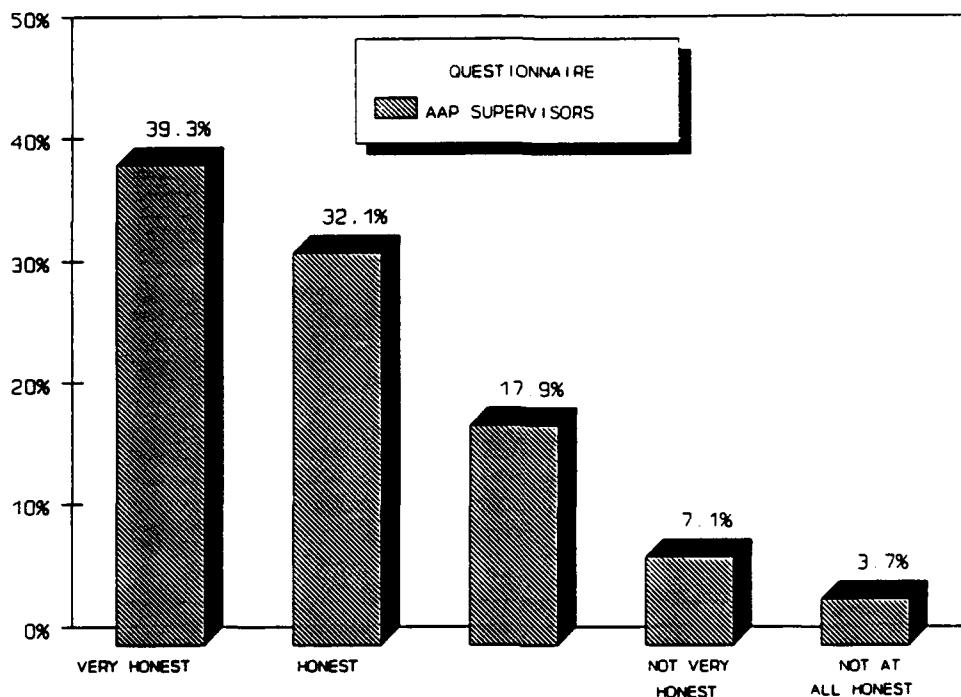


Figure 15. Apprentice Honesty at Recording Work Hours

(4) Apprentice Work Characteristics.

(a) The interviewer asked supervisors how their apprentices rated when compared to the non-apprentice soldiers who work for them. Supervisors were asked to compare apprentices to non-apprentices for the following job related characteristics: job knowledge; job interest/motivation; and the quality of work performed. Table 8 shows the percentage results for each category of these questions. Eighty-seven percent of the supervisors questioned thought their apprentices possess greater job knowledge than others working for them. Furthermore, the results for job interest/motivation and the quality of work performed were identical. Eighty-nine percent of the supervisors responded that their apprentices were more interested/motivated and performed better on the job when compared to other soldiers who worked for them.

Table 8. Comparison of Soldiers Performance Characteristics

RESPONSES VALUE INDICATORS	VERY GOOD	GOOD	SIMILAR	NOT VERY GOOD	NOT AT ALL GOOD
1. Job Knowledge	39%	47%	14%	0%	0%
2. Job Interest/Motivation..	28%	61%	11%	0%	0%
3. Quality of Work	43%	46%	11%	0%	0%

(2) The average rankings were computed for each of the questions and are displayed in figure 16. As the figure shows, supervisors unanimously gave their apprentices very high marks on job knowledge, interest/motivation and quality of work performed.

SUPERVISORS' COMPARED AAP SOLDIER CHARACTERISTICS
TO OTHER SOLDIERS WHO WORK FOR THEM

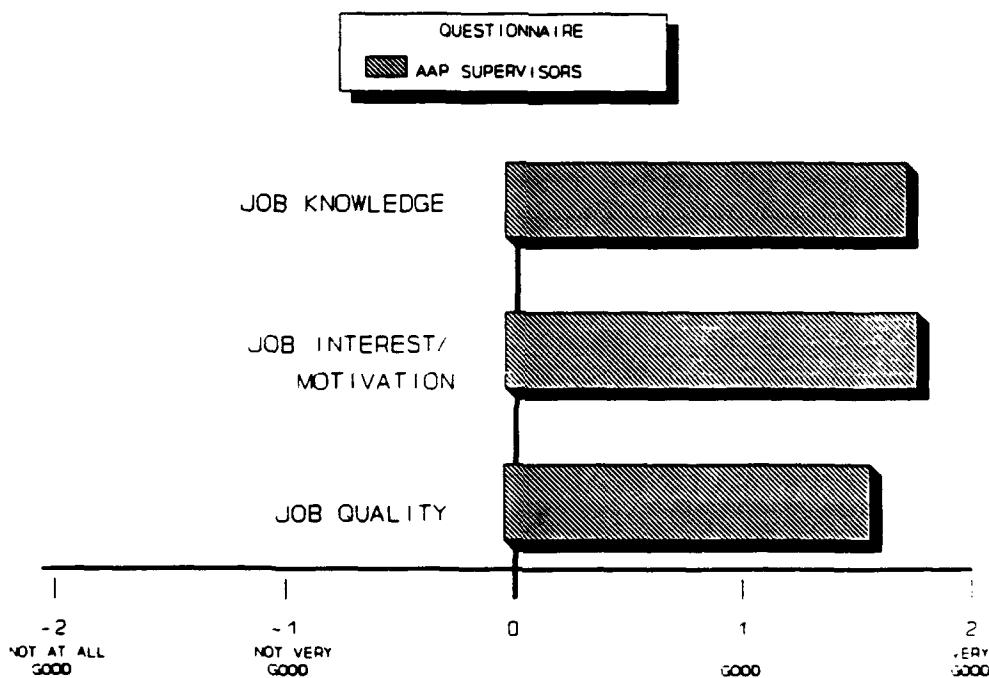


Figure 16. Comparison of Apprentice Work Characteristics

(5) Supervisors Impressions of the AAP and Potential Improvements. The last two questions on the supervisor questionnaire attempted to appraise supervisors' impressions of the AAP and determine how supervisors thought the program could be improved. The most frequently mentioned comment was that "more information about the AAP is needed earlier in a soldier's career" (table 9). The essence of this comment was that more information would cause more soldiers to get involved in participating in the AAP. Also, if soldiers can start their AAP earlier in their careers, they would have a greater likelihood of completing the program. The next most frequent comment was that "the AAP was a good program". It gave soldiers the opportunity "to document their experience" while in the Army. One supervisor mentioned the DOL certificate is a positive motivator for apprentices. Another supervisor mentioned that one of his apprentices was leaving the Army and already had a civilian job. He directly attributed his apprentices' success at obtaining a civilian job to the documentation that the AAP provides. The third most frequent comment was that "soldiers do not have the opportunity to work in all areas needed for the AAP completion". The principal reasons for a soldiers inability to complete the AAP are: the work schedules needed to be revised to more accurately reflect work actually performed; the amount of contracting out prevent soldiers working in those areas that are needed for completion; and simply, the nonrotational design of the AAP.

Table 9. Supervisor Comments Regarding the AAP

Frequency	Supervisor Comments
7	More information is needed, earlier in a soldiers' career
6	The AAP is a good program
5	Soldiers don't have the opportunity to work in all areas needed for the AAP completion
1	Conferences explaining the AAP at the unit level
1	More documentation is needed when a soldiers ETS
1	Streamline documentation process
1	Need to educate leadership of the importance of the training mission
1	The program needs to be more flexible
1	WIP need to be adjusted

3. Additional Problems/Deficiencies. The following are additional problems with current operating procedures that should be addressed in the reorganization of the AAP.

a. AAP Information/Marketing.

(1) The AAP is currently poorly marketed. The Army Personnel Survey Division, US Army Personnel Integration Command (USAPIC) conducts the Sample of Military Personnel (SMP) twice a year. The population consists of all permanent party active duty enlisted personnel. At the request of the study agent, USAPIC included four questions in the spring 1989 sample survey of military personnel. The objectives of the first two questions were to determine how informed, soldiers were about the AAP, and whether soldiers actually knew if they were eligible to participate in the program. As table 10 shows, 80 percent of the Army, privates through corporals, have either never heard about or know the AAP by name/concept but they did not know any of the particulars of the program. Furthermore, 73 percent of them did not know whether or not they were eligible to participate in the program. On a positive note, the data suggests that the longer a person is in the Army, the more likely they possess knowledge of the program.

(2) A marketing plan needs to be developed that will insure that soldiers get AAP related information sooner in their initial Army enlistment. This marketing plan should be detailed enough to assign the responsibilities of all agencies involved with the AAP: DA ACES and supporting MACOM ACES, USAREC and Army recruiters, TRADOC and related schools. One possible measure of program effectiveness could be the amount of information about the AAP that exists in the enlisted population. Annually, USAPIC could question soldiers' knowledge of the program. The results could be monitored from year to year to determine the effectiveness of the AAP marketing campaign. Also, a question could be included that would pinpoint where soldiers are getting their information on the AAP. These results can be compared to the results of the AAP Entry/Exit surveys and tracked on a yearly basis to measure how effective each of the organizations are at delivering information to soldiers.

b. Recruiting Incentive. Phase II results revealed that the AAP was a positive influence on AAP participants' decisions to enlist. The AAP could be an effective recruiting incentive because it has the potential of positively influencing the decisions of American youth who are interested in job/skill training. In order to use the AAP as an incentive for recruiting youth into the Army, a working relationship must be facilitated between DA ACES, TRADOC, and the Recruiting Command.

Table 10. AAP Knowledge - Sample of Military Personnel

Response	Response Group		
	PV1-SPC CPL	SGT-SSG	SFC-SGM
Never Heard of the AAP	55%	32%	22%
I've heard of AAP but:			
- I don't know any particulars	25%	24%	20%
- I know a little about AAP	16%	33%	42%
- I know a lot about AAP	4%	10%	16%
Program Eligibility			
Yes	15%	23%	18%
No	12%	21%	39%
I don't know	73%	56%	43%
Sample size	8,150	4,805	1,752

c. AAP Awareness and Training. The lack of awareness of certain aspects involved with the AAP suggests the need for additional training on the part of PSSS, ESO, AAP supervisors and apprentices. Why do apprentices need personalized instruction on completing the AAP application or log work hours within the program? One means of providing generalized instruction is through the use of a video tape that explains the program, (i.e., the duties and responsibilities of individuals in the program, how to join AAP, how to maintain the log book and how to complete all of the related forms). There is a need for a video tape to be developed and distributed to Army Learning Centers.

d. Purge AAP MOS. While it is impossible for the Army to insure that every soldier will complete the AAP, soldiers must have the opportunity to complete the program. If soldiers are unable to complete the program, because of either the trend of contracting work out or an inability to rotate to varying work assignments, the PSSS should immediately initiate action to modify the requirements for that MOS in the program or either discontinue offering that MOS. Either of these actions would require that program modifications be coordinated with the DOL BAT.

e. Documentation of Soldier Experience. At a minimum, every apprentice should have some sort of document showing the work which they completed while in the AAP. The means of accomplishing this is very simple. When soldiers update their records, the SOP should require that they be given an updated copy that details their credit for related instruction and all of the different WIP hours that they have been awarded. This updated record should include the number of hours of related

instruction needed, and the number of hours by WIP needed to complete the AAP. Soldiers should be made aware that if they plan to ETS, they must request in advance to receive an official document from the PSSS that outlines their related instruction and work experience completed in the AAP.

f. Greater Recognition of the AAP. The Army currently provides few tangible incentives to soldiers for joining and completing the program; whereas, with civilian programs, apprentices gain tangible benefits from joining an apprenticeship programs, (i.e., employment, learn a trade, entry into an industry or union, increased pay and status upon apprenticeship completion, etc). Soldiers are already in the Army prior to joining the AAP. Soldiers will receive job training and similar compensation regardless of their participation in the AAP. Furthermore, Army apprentices receive no additional benefits if they complete the AAP. So, "why would soldiers want to join the AAP?" Eighty-seven percent of AAP soldiers surveyed during the phase II responded that they joined the AAP to "document job skills" and that they thought the AAP would "help me to get a civilian job". AAP soldiers, by the nature of the energy involved in participating in the program, are willing to put forth the additional effort needed to further their military/civilian careers. These are types of individuals that the Army should reward. The following are tangible incentives that the Army could provide to AAP participants:

(1) Fast-tracking soldiers who participate in the AAP. The Army should consider fast-tracking, with promotions, those soldiers who participate in the AAP as a reward for taking the extra time and energy involved in documenting their experience. Phase II of this study effort showed that AAP soldiers are motivated, career-orientated individuals willing to forego immediate cash incentives for job/skill training. A possible means of rewarding them would be providing them with the same benefit as soldiers receive with the Civilian Acquired Skills Program, alias, the Stripes for Skills program. This would give AAP soldiers an added incentive of grade progression over their peers, attributable to participation in the AAP.

(2) Partial Completion Certificates. TRADOC is currently working on implementing partial completion certificates to soldiers who have completed significant portions of their AAP requirements. Soldiers who complete 25 percent of their requirement will be given a partial completion certificate. A partial completion certificate will provide greater recognition for those participating in the AAP. The Army currently gives soldiers a number of promotion points for each educational and vocational certificates. Therefore, this would provide a tangible benefit for participating in the AAP.

(3) Promotion points for AAP completion. An AAP completion certificate should become part of the soldier's official file. Furthermore, a document signed by the Commanding General from their specific PSSS detailing the related instruction and work experience should accompany the completion certificate. The purpose of this additional documentation is to allow promotion boards the opportunity to recognize the amount of effort involved in completing the AAP. Additionally, as with partial completions, soldiers should be given promotion points for an AAP completion. The number of promotion points for partial and full completion should be used as a selling point for participating in the AAP. This tangible AAP benefit should be stated up front in an AAP marketing brochure.

(4) Special Status. How about bring back the concept of a Technical Sergeant, so that soldiers with six plus years are not forced into supervision at the expense of working in ones MOS and AAP completion.

g. Civilian Industry Recognition. Another potential problem with the AAP is the lack acceptance of AAP credentials by private industry. This lack of acceptance may be a function of the lack of acceptance or quality of Army training. This was one aspect of the Army experience that was rated poorly by soldiers who were surveyed in the Army Research Institute's (ARI) Army Experience Study. A key fact is, however, that the Army does not train people for the civilian workforce. The AAP provides documentation incidental to the training of a soldier. The soldier will be trained whether or not he/she belongs to the AAP. If recognition of AAP credentials or Army training by civilian industry is a problem, then one possible solution would be for BAT to develop a competency-based testing system of all apprenticeship occupations. The AAP would have a combination of related instruction, work hours requirements and a test for competency for apprenticeship completion. A competency-based apprenticeship system would provide uniform standards for occupational skills and promote greater transferability of Army apprenticeship credentials to civilian industry. The AAP follow-up survey should provide the data necessary to determine whether there seems to be a lack of acceptance in the civilian workforce for AAP credentials.

h. PSSS Problems.

(1) The location of the PSSS varies within TRADOC schools and is generally located in the TRADOC school which is the proponent for a particular apprenticeable MOS. Their location within the school is undefined because the AAP PSSS function doesn't necessarily fit into the current school model. A number of schools no longer staff and perform the PSSS functions either because of no clear direction or a lack of

command emphasis by TRADOC school management. The responsibilities of the PSSS, except where local AECs have picked up those functions, require the most administrative or labor intensive functions.

(2) The lack of command commitment for the AAP has diminished the time available to support the AAP. At the Southern States Apprenticeship Conference in July 1989, a number of the PSSS representatives expressed an opinion that AAP functions are not their primary duties within their school. Apparently, AAP functions have been relegated to secondary duties on a catch-as-you can basis.

(3) PSSS representatives are currently performing only those functions that are minimally necessary (i.e., verifying previous experience, and review and approving AAP completions). PSSS representatives, because of the lack of time, priority or some other reason, are not currently performing other very important AAP functions (i.e., work with BAT to develop and register new apprenticeship MOSS, draft AAP publications, promote AAP through PSSS publications and media). TRADOC must insure that the role of the PSSS is preserved and that TRADOC schools perform the functions outlined in DA PAM 621-200.

CHAPTER 6 - Program Alternatives

1. Functional Organization.

a. Figure 17 depicts how the new AAP could be functionally organized. Part of the restructuring of TRADOC has already solved one of the problems identified previously, (i.e., the lack of direct line authority over TRADOC schools). The organizations responsible for administering the AAP at TRADOC has shifted from the TRADOC DCSPAL to the TRADOC DCST. The new AAP functional organization should include the US Army Recruiting Command. In order to expand the AAP and for the Army to maximize the benefits from offering the AAP, the TAPC ACES should promote the use of the AAP as a recruiting incentive.

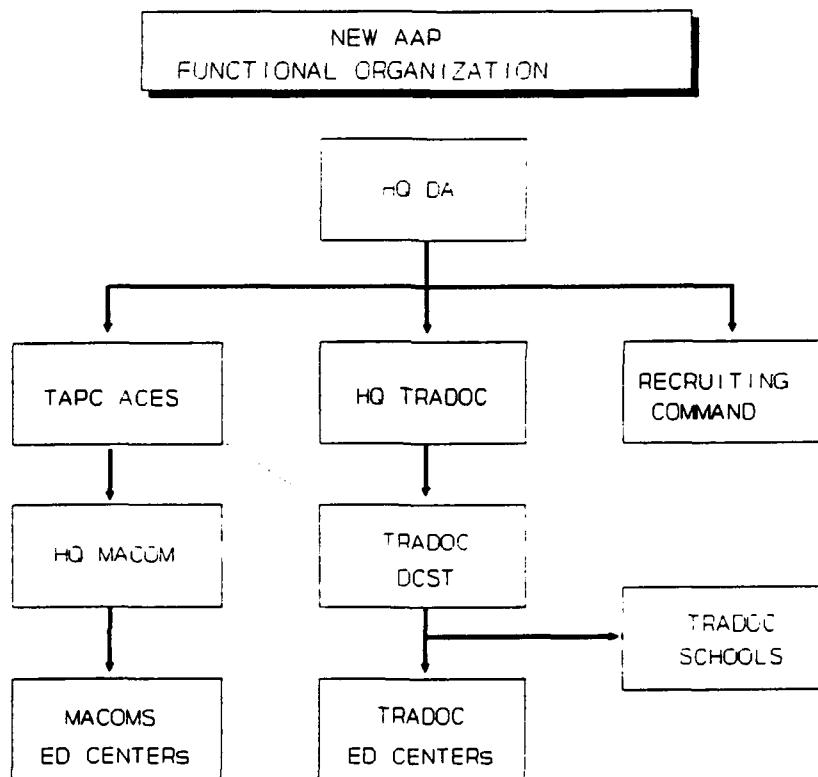


Figure 17. The New AAP Functional Organization

b. To improve the AAP efficiency and performance, the TAPC and TRADOC managers should modify the current operating procedures. A redesign in the overall AAP organization is in order. AAP management needs to delegate the freedom to make decisions about the AAP to a lower level, or the local TRADOC school level. In the past, everyone ESO, PSSS, TRADOC, and TAPC have had separate responsibilities for administering certain

aspects of the AAP, but yet, no one has been responsible or held accountable. TRADOC and TAPC should promote individual school ownership for their own particular apprenticeship programs, creating the concept of an "accountability center". Individual TRADOC schools should be totally accountable for not only their MOSSs, but also the operation and administration of their particular apprenticeship program. Furthermore, there is a need for a creation of the concept of individual TRADOC school Apprenticeship Program Manager (APM). TRADOC schools and more specifically the APM should be charged with the responsibility for their own apprenticeship program development and administration. Individuals take greater pride and achieve higher levels of performance when they have a sense of ownership in a job or a task.

c. As shown in figure 18, the concept of a TRADOC school based apprenticeship would create ten different apprenticeship programs under the overall structure of the AAP. These TRADOC school APM would report and be accountable to the DCST office at TRADOC.

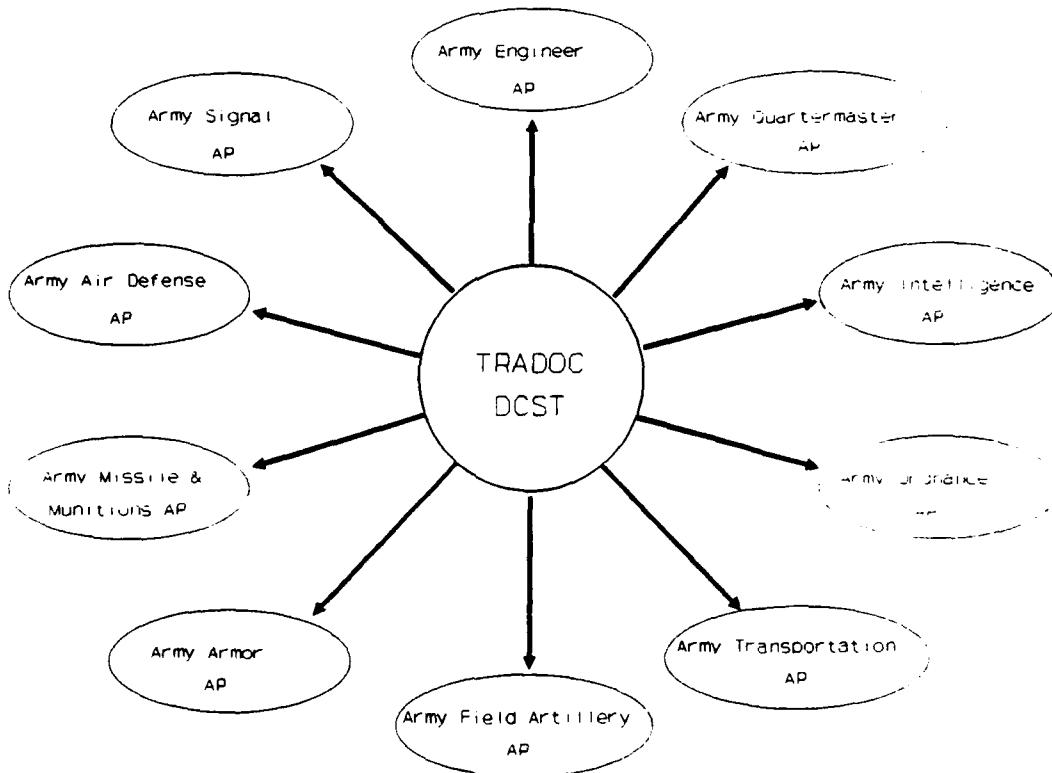


Figure 18. The New AAP Organizational Structure

2. Changes in Responsibilities. A summary of the organizational changes in the duties and responsibilities are shown in figure 19. The following paragraphs detail suggested modifications in the duties and responsibilities of the key organizations involved with the AAP.

TAPC ACBS	AAPM	EBO/EBS
<ol style="list-style-type: none"> Establish policy for the AAP; Establish reporting requirements; Recommend/review proposed changes to operation and administration; Acquire Dept. of Labor BAT official registration of new AAPs; Publish DA pamphlets containing procedures and individual program requirements; Market the AAP through Army-wide channels; Conduct program evaluations. 	<ol style="list-style-type: none"> Develop and coordinate AAP procedures in their functional areas based on the occupations contained in the DOL bulletin, list of occupation recognized as Apprenticesable by BAT; Establish and maintain an official AAP file for AAP participants in their schools occupation area; Submit through channels to HQDA: <ol style="list-style-type: none"> Request of DOL, BAT official registration of new AAPs; Draft AAP pamphlets for publication and distribution; Review existing AAP pamphlets for and prepare draft revisions annually; Maintain liaison with BAT industry (union and mgmt) and professional associations; Promote their AAP Army-wide through their service schools publications and other media; Determine credit for previous work experience; Resolve all questions pertaining to credit for previous work experience; Submit AAP completion requests to DOL. 	<ol style="list-style-type: none"> Answer questions and provide information to soldiers who inquire about the AAP; Distribute AAP handbooks; Direct soldiers to ALC for instruction on how to participate in the AAP;
		APPRENTICE
		<ol style="list-style-type: none"> Complete the AAP application forms; Complete the forms needed to obtain for credit for previous work experience; Maintain AAP log book of work experience; Update records quarterly with the AAP.

Figure 19. Summary of Proposed Changes in Duties/Responsibilities

a. Apprentice. The responsibilities of the apprentice should not change substantially. They would no longer have to report to the ESO on a quarterly basis. The apprentice will correspond directly to his/her APM office. If he/she encounter problems or have questions about the program the apprentice can refer to their AAP handbook or contact their APM directly to resolve the issue.

(1) Entry Application. The AAP applicant should be totally responsible for completing the AAP application. The most appropriate time for accomplishing this should be directly following the APM briefing during AIT. Other soldiers interested in joining the AAP can request the application from an ESO. Apprentices should complete the application and sending it to their APM.

(2) Apprentice Participation Instruction. The individual APM should provide the procedure training for apprentices during AIT. If soldiers did not receive this training prior to their first duty station, they can refer to their apprentice handbook or go to an Army Learning center to listen to the AAP video tape.

(3) Credit for Previous Experience/Instruction. The new entry process should emphasize bringing new soldiers into the AAP who either signed for the new AAP recruiting option or entered as a result of the APM briefing at AIT. The new entry process should reduce the number of soldiers need to obtain this credit, thus, lessening the time and effort involved for the APM to verify previous work experience and related instruction. If a soldier joins the AAP out of the normal entry cycle, they can still obtain credit for experience and related instruction. To obtain credit, a soldier must recreate their work history and have their previous supervisors sign the related forms to verify experience and then forward this to the APM.

(4) Maintain Log Book of Work Experience. The apprentice must maintain an AAP log book. This log book records the hours an apprentice has worked in each specific work category. The apprentice's supervisor must sign each record in the soldier's log book prior to it being incorporated into the apprentices official record. The apprentice must update the APM files on a bi-annual basis, (i.e. send copies of their AAP log books directly to APM the office).

b. Education Service Office. TAPC and TRADOC should deemphasize the role of the ESO with regards to AAP administration. Allow education center counselors to function in their primary role of providing career and educational counseling to Army soldiers. ESO's, with regards to the AAP, should now be primarily responsible for marketing the AAP, distributing AAP brochures and forms, and directing potential apprentices to Army

learning centers for AAP information.

c. Apprenticeship Program Manager (APM). The APM should have greater responsibilities than the current PSSS. The APM is charged with the responsibility of developing and administering an individual apprenticeship program. On paper the APM's duties and responsibilities will not change much. However, there should be a task tradeoff for the APM with the new entry process, less time should be spent verifying previous work experience and related instruction, but more time should be needed for marketing and maintaining AAP records. The following paragraphs detail the proposed new duties and responsibilities of the APM.

(1) Maintaining and Expanding the AAP. The APM should work in conjunction with the DOL, BAT to expand the AAP by including new MOSSs into the program. The APM should be charged with the responsibility of developing and implementing apprenticeships for their MOSSs that are not currently part of the program. They must work with the BAT officials to establish related instruction and work experience standards for these new MOSSs. Also, they must continually monitor changes to MOSSs, Programs of Instructions (POI), and work standards that affect MOSSs currently in the AAP. The APM should be responsible for developing and revising AAP pamphlets for their schools' MOSSs.

(2) Market and Public Relation. The APM should be responsible for marketing the AAP Army-wide through their TRADOC schools publications and other media, such as post newspapers, newsletters, etc. The role of the APM should also be one of public relations with their civilian industry counterpart in the private sector, management officials, union officials, and professional associations.

(3) Manage AAP Record Keeping/Data Processing Function. The APM at the TRADOC school level should supervise/perform the record keeping functions associated with their apprenticeship programs. The APM establishes an official file for each applicant and maintain the files on his/her apprentices. The APM is responsible for automating the collection and maintenance of data for his/her apprentices. TRADOC DOIM should develop a personal computer based system for collecting data for each of the 10 APMs. Briefly, this system should allow the APM to initiate new records, update hours, print standard reports, and upload AAP files to the TRADOC DCST. This data processing system should feed a management information system that creates reports for TRADOC, DA, and DOL BAT management.

(4) Program Requirement Verification. The APM should perform the role of quality control for the AAP. The APM review and verify initial enrollment applications for technical accuracy and completeness. The APM should furnish the guidance and

resolve all questions regarding the awarding of credit for previous work experience. The APM should verify the hours of related instruction that a soldier requests. The APM should be the only individual working in the AAP that can award credit for related instruction and work experience related to his/her schools MOSSs.

(5) Completion Approval. The data processing system at the school level should provide better control for AAP completions. After AAP records are updated, the DP system should automatically print a report that shows those apprentices that meet the requirements for partial and full completions. After the APM verifies that an apprentice has met the requirements, he/she can include completion request along with quarterly record updates, for TRADOC approval.

d. TRADOC. The focus of changes for TRADOC should be that TRADOC will evaluate and determine operational effectiveness of program management at the school level. Under the proposed reorganization, the TRADOC DCST office will be responsible for guidance and setting goals for the 10 separate AAP programs. TRADOC should assist APMs in developing individual apprenticeship programs. TRADOC should assist APMs with developing operational goals for individual apprenticeship program. The DCST's office should evaluate individual program effectiveness, i.e., determine if operational goals are being met at the school level. TRADOC should be responsible for assisting the TAPC ACES with program evaluation i.e., determining whether the AAP is achieving its intended goals. TRADOC should be responsible for directing and insuring that the AAP is marketed within TRADOC through individual TRADOC schools publications and other media, such as TRADOC post newspapers, newsletters, etc.

e. TAPC ACES. The responsibilities of the TAPC ACES should not change, TAPC should be primarily responsible for providing "Macro-Level" policy direction for the program. TAPC ACES should be responsible for publishing DA pamphlets and regulations containing procedures and individual program requirements that govern AAP operations. The TAPC ACES should review, approve or disapprove proposed changes in operation and administration of the program. The TAPC ACES must maintain their role as a liaison with the DOL BAT to acquire official registration of new apprenticeship programs for Army MOSSs. The TAPC ACES should develop an overall marketing strategy for the AAP, direct and insure that the AAP is marketed within MACOMS through individual Education Centers to MACOM post newspapers, newsletters, etc. TAPC ACES must be responsible developing the overall focus or goals for the AAP, (i.e., recruiting, retention, readiness). Furthermore TAPC ACES should be responsible for conducting program evaluations to determine if the concept of the AAP is accomplishing the intended goals for the Army.

f. This reorganization and realignment of duties would necessitate a redistribution of AAP personnel based on the increased demand being placed on the APM. Because of the increased responsibilities of the APM position, a dedicated position would be required. Furthermore, on a case-by-case basis, the TRADOC DCST's office would have to determine the amount of clerical support required (based on workload).

3. New AAP Operating Procedures.

a. Figure 20 displays one alternative to the current delivery system of administering the AAP. This alternative allows soldiers and the Army to capitalize from the benefits of the AAP. This alternative requires that the Army works toward moving entry into the AAP closer to a soldier's initial enlistment decision. The reasons that support this alternative are that: first-term soldiers have a greater chance of completing their programs; the Army can use the program as an incentive for recruiting; and the AAP completion provides an additional incentive for soldiers to reenlist (if completion is tied to promotional potential). If soldiers join the AAP sooner in the initial enlistment, this reduces the requirement for reconstructing records of work experience and related instruction and thus lessens the administrative burden on soldiers, supervisors, and APMs.

b. An appropriate method of accomplishing this goal is to allow/promote AAP use as a recruiting incentive. USAREC could identify soldiers who have selected an AAP MOS enlistment option. A soldier's enrollment would be contingent upon him/her completing AIT and being awarded his/her particular MOS. A soldier's DA 2-1 record could include an AAP designator. A report could be sent to each APM to identify which soldiers have enlisted for the AAP option.

c. The APM should be required to provide a short informational presentation to every graduating AIT class. The purpose of this presentation would be to provide an overview of the AAP, benefits of participating in the AAP, a list of employers that have hired soldiers who participated in the AAP, and the responsibilities of the apprentice. After this briefing, the APM could enroll those soldiers who have signed for the AAP option at enlistment; or those who are now interested in the AAP.

NEW AAP ENTRY PROCESS

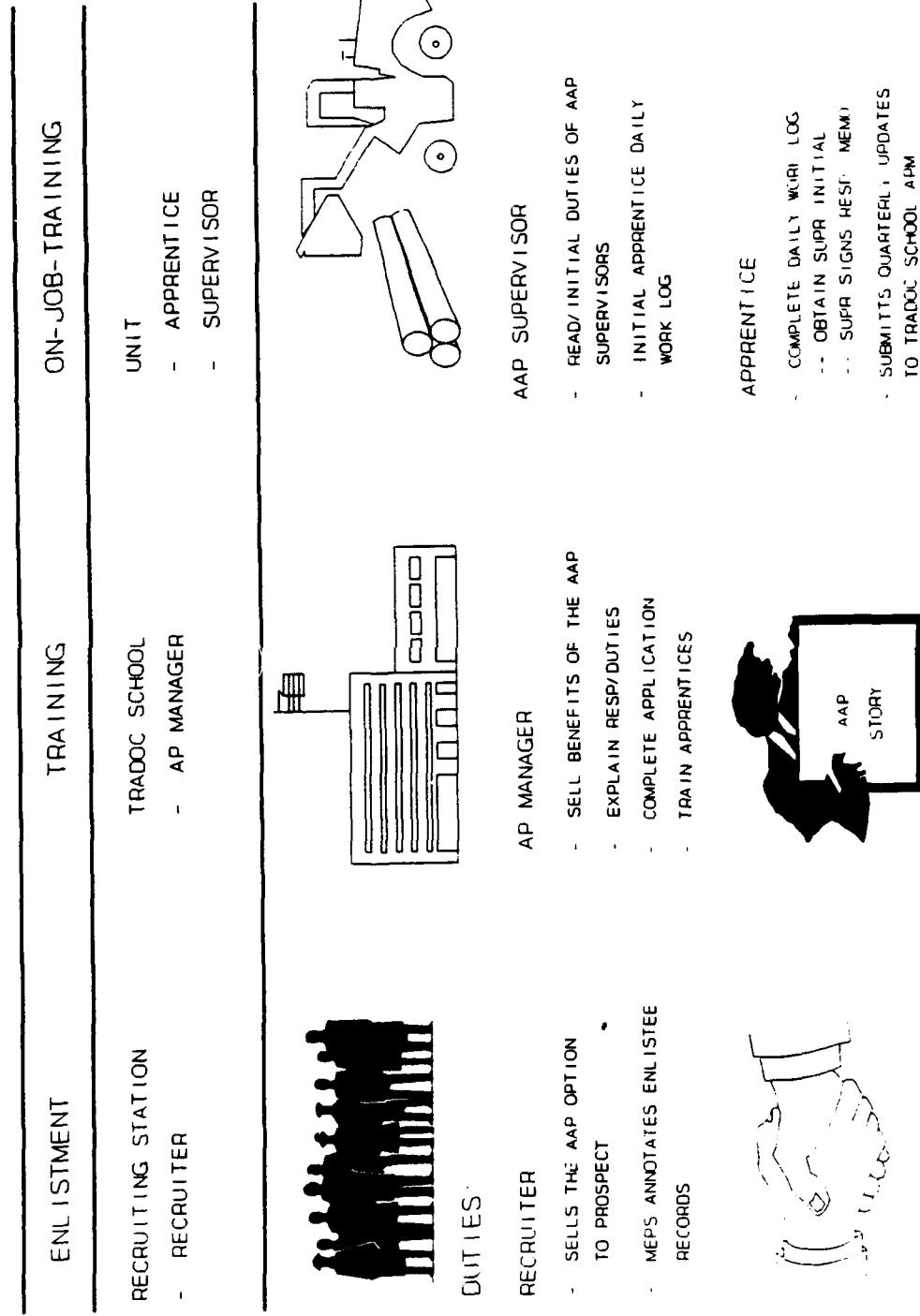


Figure 20. Proposed New Entry/Operating Procedures for the AAP

The APM could provide a training session then or schedule a training session sometime prior to when soldiers leave for their first duty station. This training session would consist of instruction on how to log work experience, further detail on the duties of the apprentice, and how to resolve problems encountered with the AAP. As the figure shows this should be the most prevalent route for entering the AAP.

d. A secondary means that experienced soldiers could use to gain entry into the AAP would be to have soldiers inquire into AAP through the Army education center. Education Counselors could provide some basic information about the AAP and provide the related application forms. At this point, the Education Counselor could direct potential AAP participants to an Army Learning Center, where the potential apprentice could view a video tape that describes the AAP, benefits of participating in the AAP, a list of employers that have hired soldiers who participated in the AAP, responsibilities of the apprentice, instruction on how to log work experience, and resolve problems encountered with the AAP.

4. Support for AAP Reorganization

a. Gain Management Efficiencies.

(1) Knowing that these are times of shrinking budgets for programs and personnel, TRADOC leadership needs to address how best to allocate its available resources to maximize personnel impact and effectiveness. Much of the literature on job specialization suggests that, from a managerial and efficiency stand point, it's preferable to organize around fewer individuals who perform specialized functions than with more individuals who perform a variety of job functions. The reasons most often given to support job specialization are: job repetition lessens skill decay (i.e., the half-life of most skills is less than 5 years); with fewer individuals performing certain job functions can be managed and adequately train with less difficulty.

(2) In the context of the AAP, there are currently well over 200 civilian and military personnel performing functions related to the AAP. However, according to the response received to the TRADOC DCSPAL resource worksheet, less than 5 individuals, including DCSPAL and TAPC ACES personnel, work on the program greater than 80 percent of their time. On average, civilian employees currently performing the PSSS functions spend only about 15% of their time working with the AAP (table 11).

Table 11. Average Percentage of Time Personnel Spend Supporting AAP Functions

AAP Function	Civilian % time/number	Military % time/number
PSSS	15.1%/ 19	50.4%/ 5
ESO	9.7%/157	40.2%/ 7

(3) It would be better, from a management perspective, to administer the AAP with fewer more highly trained personnel, than with existing personnel who may be less knowledgeable about the program procedures and who have less time to carry-out their AAP functions.

b. Streamline the AAP documentation process. The proposed organization helps to streamline the AAP documentation requirements. The new entry process should reduce the number of soldiers with previous work experience, thus, lessening the time and effort involved for the APM to perform the verification function. The new organization allows for centralized management of AAP records at the TRADOC schools level. This reduces the number of organizations involved with record-keeping and the number of lost records as a result of apprentices transporting official files. Furthermore, the reorganization would decrease the number of organizations reviewing completion applications. The reduced number of reviewers and the electronic transfer of records and application should decrease the time needed to obtain a partial or full completion certificate.

c. Resolves Organization Problems. In its current configuration, TRADOC can not manage day-to-day operations of the AAP, because the TRADOC DCST has no line authority for education off TRADOC post. Furthermore, the problem of insuring that education center counselors are fully trained and performing their functions at all education centers world-wide is too substantial a task to manage.

d. Decrease the layers of bureaucracy. The proposed reorganization removes the education center from the day to day administration of the AAP. The two principal agencies involved in the operations of the AAP will be the TRADOC schools and the TRADOC DCST. Decreasing the layers of the bureaucracies should expedite the verification process and completion approvals.

e. Foster competition between TRADOC schools. TRADOC DCST should evaluate each schools' apprentice program performance on a yearly basis on such factors as: number of AAP hours logged, average number of hours per apprentice, number of partial or full completions, new apprenticeship programs developed, substantial improvements in apprenticeship programs, etc. The DCST should personally give award for the top three programs. The awards with proper promotion should foster competition between AAP programs and APMs.

CHAPTER 7 - Resource Impacts of the AAP and Alternatives

1. AAP Operating Resources.

a. TRAC-FBHN requested that all PSSS, CONUS and OCONUS Education Centers complete a resource worksheet (appendix d) which detailed the FY89 resources required to operate the AAP. This resource worksheet was used to collect data on personnel required to administer the program and the cost of: Equipment and Supplies; Automated Data Processing (ADP) Equipment and Support; and Contractor Support.

(1) Personnel Required.

(a) PSSS and ESO listed all civilian employees and military personnel (to include clerical support) that process/administer the AAP at their site. They listed for each individual the grade/step level if civilian, and rank/year if military they were personnel. They estimated the percentage of the work year that each individual performs duties that supports the AAP. Furthermore, they estimated the percentage of time dedicated to AAP for either counseling soldiers, enrolling AAP participants or recording/verifying AAP hours. Table 12 shows a summary of the number of civilian and military personnel required to administer the AAP. In FY89 188 soldiers and civilians were required to perform administrative tasks associated with the AAP program. At first glance, this may seem considerable, however, these 188 people are working, on average, only about 13 percent of their time on the AAP.

Table 12. Number of Personnel & Percentage of Time Dedicated to AAP Functions

AAP Role	Civilian number/% time	Military number/% time	Total number/% time
PSSS	19/15.1%	5/50.4%	24/22.4%
ESO	157/ 9.7%	7/40.2%	164/11.0%
TOTAL	176/10.3%	12/44.4%	188/12.5%

(b) A common misconception is that if the AAP is discontinued that the personnel positions responsible for administering the program at TAPC, TRADOC, TRADOC schools, and Army Education centers would be eliminated. However, this assumption is spurious because PSSS and ESO personnel are on average spending only about 12 percent of their time performing AAP functions. Therefore, the Army will not save personnel resources if the program was eliminated. If PSSS and ESOs no

longer have to administer the AAP, they would just focus on the majority of other tasks associated with their job. Therefore, for the purpose of this costing an assumption is that if the AAP was discontinued the associated PSSS and ESO personnel would not be terminated and therefore the Army would not save resources due to fewer civilian personnel.

(2) Equipment and Supplies. PSSS and ESO described the type of equipment or supplies used to support the AAP. For each item listed, they described its function or how the item was used (i.e. counseling, enrolling or recording/verifying AAP hours). They estimated the yearly cost associated with each item. They also estimated the percentage of time that each item is used specifically for AAP functions versus other ACES functions. The supplies and equipment categories includes those supplies and equipment needed to administer the AAP. Responses to this category was limited to an estimate of office supplies needed for the program, no equipment other than ADP was identified as necessary for program administration.

(3) ADP Equipment and Support. PSSS and ESO described the type of ADP equipment or support used for the AAP. For each item listed, they described its function or how the item is used (i.e. counseling, enrolling or recording/verifying AAP hours). They estimated the yearly cost associated with each item. The estimated cost for ADP equipment included the cost of maintenance. They also estimated the percentage of time that each item is used specifically for AAP functions versus other ACES functions. The percentage of time that current ADP equipment is being used for the AAP was determined to be insignificant compared to the time the equipment was used for other ACES functions (i.e., between 10 to 15 percent). Furthermore, for the purpose of costing the AAP, the cost of existing ADP equipment are considered a sunk cost. Sunk costs are those expenses that have previously been paid, they are non-reoccurring costs that have no bearing in decisions process regarding future courses of action.

(4) Contractor Support. Several ESOs utilize contract personnel and equipment in Army Learning centers to perform their AAP functions. This is especially true outside of CONUS. ESO described the type of contractor support used for the AAP. For each contract item listed, the ESO was asked to describe the function or how contractor support was used (i.e. counseling, enrolling or recording/verifying AAP hours). They estimated the percentage of the contract effort that is used specifically for AAP functions versus other ACES functions. The percentage of contractor time and cost were accumulated and included in this cost.

(5) Annual Conference Cost. During FY89, TAPC hosted, in conjunction with the Southern States Apprenticeship Conference, an Army Apprenticeship Conference in Atlanta, Georgia. The conference provided an excellent forum for AAP managers and PSSS representatives to discuss the nature of changes in apprenticeships occurring within the Army, government, and industry. The cost is an estimate of the total cost for travel, per diem, and associated expenses.

2. Total Cost. The aggregate cost for each of the above categories are shown in table 13. As shown in the table, there are three columns of cost figures. After two memorandums and a number of telephone calls, we were unable to obtain completed resource worksheets from Europe. Therefore, the first column calculates the cost for administering the program for TAPC, TRADOC, and all ESO other than Europe. The second column, Europe cost, is an extrapolation using current data to compute an average cost per ESO. This average cost was applied to the number of Europe ESOs to estimate the European cost of administering the AAP. The third column is an estimate of the total cost for administering the AAP.

Table 13. FY 89 Cost of Operating the AAP

Cost Categories	W/O Europe Cost	Est. Europe Cost	Total Cost
ADP Equipment & Support	-	-	-
Equipment & Supplies	11,000	2,000	13,000
Contractor Support	50,000	10,000	60,000
Annual Conference	<u>14,000</u>		<u>14,000</u>
	75,000	12,000	87,000

CHAPTER 8 - Conclusions and Recommendations

1. Conclusions.

a. The purpose of this report is to present results of the third phase of the overall AAP evaluation. The third phase consisted of a review of literature, interviews with subject matter experts, and collection/analysis of data requested from personnel within ESOs, PSSS, and AAP supervisors. Cost data was also collected to determine the operating cost of the program and the cost of potential alternative programs.

b. Civilian industry has determined that the "Apprenticeship Concept" is a sound means of training skills. Industry leaders recognize that it is essential that apprenticeship programs and training programs be expanded to meet the growing needs for skilled labor in the future. The trends in civilian apprenticeship are towards expanding the concept by developing linkages with Education and Vocational Training and increasing the flexibility of apprenticeship training programs. One means of increasing the flexibility of apprenticeship training programs is through a competence-based apprenticeship concept that certifies skills developed through apprenticeships.

c. The strategies for training skills needed by the Army in the year 2000 are undergoing a great deal of modification. As the Army tackles a major restructuring, innovative strategies are being developed by the FTD, DCST office to reduce the cost of military training. One strategy proposed by the FTD DCST is to contract training program development and/or instruction through vocational schools, community colleges. This training concept could help the Army develop a "Dual Apprenticeship System" by linking vocational schools and/or community college to the Army on-the-job training. A dual system is similar to trends in the private sector and would build more formal academic credentials into the Army's apprenticeship structure. TRADOC should reemphasize the need for apprenticeship "type" training for developing the skills needed for future (i.e. the works of BAT in Apprenticeship 2000).

d. The AAP is currently suffering from neglect. The state of the AAP can be characterized as one of a "death spiral". Without immediate attention and effort, the AAP will continue its spiral to its eventual demise. While apprentices, supervisors, ESOs and PSSSs have generally provided favorable comments about the need and intentions of the program, a persistent theme from ESOs, and PSSSs was that "they need help with the program." AAP management needs to make an effort to correct the problems associated with the AAP. The study identified the problem areas

that need to be resolved: lack of adequate feedback on apprentices after they leave the Army; inadequate AAP documentation; lack of commitment at all levels of management (Unit through the Department of Army) to the AAP; obstacles that impede AAP completions; lack of adequate AAP resources; insufficient AAP marketing; lack of AAP training; and little or no recognition for participation in the AAP.

2. Recommendations.

a. To solve the operational problems associated with the program, this report proposed to reorganize the AAP based upon the concept of individual school ownership of their apprenticeship programs. AAP management needs to delegate the freedom to make decisions about the AAP to local TRADOC schools. Thus, creating the concept of an "accountability center". TRADOC schools should be totally accountable for not only their MOSS, but also the operation and administration of their particular apprenticeship programs. This concept would create ten separate apprenticeship programs under reporting directly to the DCST office. TRADOC must incorporate the Apprenticeship Program Manager (APM) into the future "school model." The entry process for the AAP should be changed to promote the use of the AAP by USAREC as a recruiting incentive. To solve other operational problems, this report proposed the development of: a system of providing continuous feedback on AAP soldiers; Standard Operating Procedures (SOP) for the APM; AAP marketing brochure; apprentice handbook; an automated data processing system for the APM; fast-tracking apprentices; partial completions; and separate promotion points for AAP completions.

b. The cost of administering the AAP for FY89 was estimated at \$87,000.



HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONMOUTH, VIRGINIA 23691-5000

REPLY TO
ATTENTION OF

ATPL-B (621-5a)

17 NOV 1988

MEMORANDUM FOR: Director, TRAC-FBHN, ATTN: ATRC-B, Fort Benjamin Harrison, IN 46216

SUBJECT: Army Apprenticeship Program (AAP) Evaluation Study

1. Purpose. This memorandum provides for the performance of the subject study to answer the management issues in paragraph 4.

2. Background. The AAP was created in 1976, to provide enlisted soldiers with the opportunity to document specific work experience and related instruction applicable to military service. The AAP is approved by the Department of Labor (DOL) and each soldier apprentice is registered with Bureau of Apprenticeship and Training of DOL. AAP should in theory aid a soldier in the transition from military service into a civilian occupation. The Army must now make informed decisions regarding the future of the AAP.

3. Problem. The Army needs to know the cost-benefit of internal apprentice soldier performance and whether the original intent of the AAP is being met.

4. Management Issues.

a. What are the benefits the Army derives from the AAP?

b. What are the soldier expectations of the value of AAP and are those expectations being met after the soldier leaves the Army?

c. Do soldiers benefit from participating in the AAP?

d. Does the civilian sector recognize AAP documents as bona fide credentials?

e. What are the deficiencies of the AAP?

f. Should the AAP be continued in its present form, be modified, or discontinued?

5. Approach. The AAP evaluation will be a three phase study effort with each phase satisfying the management issues it addresses. Phase I will, through use of historic data, identify the tangible benefits the Army derives from AAP. Phase II will

ATPL-B (621-5a)

SUBJECT: Army Apprenticeship Program (AAP) Evaluation Study

Milestones (Cont'd):

f. Phase II - Survey Development Mar 89

**NOTE: OMB Survey approval time line will impact
on total study milestones.**

g. Phase IIa - ACES Survey Data Collection Mar - May 89

h. Phase IIa - Interim Report Jun 89

i. Phase III - Methodology Development Jul 89

j. Phase IIb - Follow-up Survey Data Collection & Analysis May - Aug 89

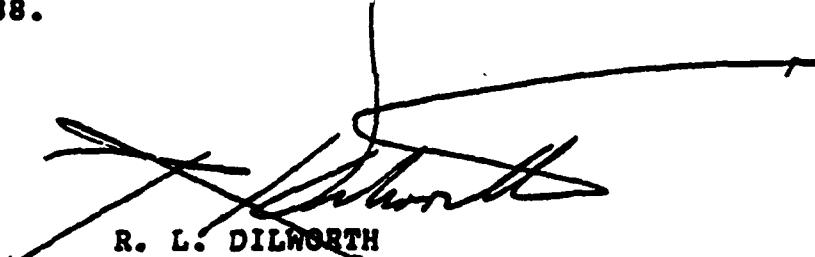
k. Phase IIb - Interim Report Sep 89

l. Final Report/Briefing Nov 89

g. The study sponsor is DCSPAL. HQ TRADOC POC is Ms. Myrtle Williams (ATPL-B), AV 689-3628. HQ TRAC POC is Mr. John Gargaro (ATRC-RPR), AV 688-3117. TRAC-FBHN POC is Mr. Martin Walker (ATRC-B), AV 699-6897.

9. This study is currently not in the TRADOC FY 89 AR 5-5 Study Program dated June 22, 1988.

FOR THE COMMANDER:



**R. L. DILWORTH
Brigadier General, GS
Deputy Chief of Staff for
Personnel, Administration
and Logistics**

CF:

**U.S. Dept of Labor, Bureau of Apprenticeship and Training,
ATTN: Mr. Van Erden**

Cdr, USATTRAC, ATTN: ATRC/ATRC-TD/ATRC-RM

Dix, TAPA, Education Div, ATTN: DAPC-PDE

Dix, USATTRAC, RPD, ATTN: ATRC-RP/ATRC-RPR/ATRC-RPP

APPENDIX B - STUDY PLAN

**ARMY APPRENTICESHIP PROGRAM (AAP)
EVALUATION**

STUDY PLAN

Martin R. Walker

18 November 1988

US ARMY TRAC-FBHN

ATTN: ATRC-B, (BLDG. 401-B)

FORT BENJAMIN HARRISON, IN 46216-5000

STUDY PLAN

ARMY APPRENTICESHIP PROGRAM (AAP) EVALUATION

1. PURPOSE. The purpose of this study is to identify the benefits that the Army Apprenticeship Program (AAP) provides to soldiers, the Army and the civilian work force and to evaluate the cost of offering the program.

2. REFERENCES:

a. Study Tasker, 17 November 1988, Army Apprenticeship Program Evaluation Study.

b. Army Regulation 621-5, 25 July 1986, Army Continuing Education System.

c. Army Pamphlet 621-200, 18 Dec 1987, Army Apprenticeship Program Procedural Guidance.

3. TERMS OF REFERENCE.

a. BACKGROUND.

(1) An apprenticeship is a prescribed period, where an individual learns a trade through on-the-job training and related instruction. As a result of a July 1975 agreement between the Secretaries of the Army and the US Department of Labor (DOL), the Army developed apprenticeship programs for all Military Occupation Skills (MOS) considered to have civilian counterpart apprenticeship occupations and registered them with DOL, Bureau of Apprenticeship and Training (BAT). The AAP was created to serve as a training documentation system for soldiers rather than a long term training program for career soldiers. The AAP adheres to DOL standards for the required number of hours of work processes and related instruction for a trade.

(2) The AAP was designed to provide a vehicle through which soldiers could document industry-related service acquired skills in a manner acceptable to industry. Thus, soldiers could earn vocational credentials equivalent to those in comparable civilian occupations. Soldiers who document the required training hours as specified by the DOL and approved by the proponent service school should receive a certificate showing completion of the AAP. The DOL certificate of completion should aid the soldier in the transition from military service into a civilian occupation. Also, a letter of partial completion along with documentation showing work processes and related instruction completed, should aid a soldier in the transfer from AAP to a civilian sponsored apprenticeship program.

(3) The goals for the AAP in Army Regulation 621-5, 25 July 1986, Army Continuing Education System (ACES) are consistent with 10 US Code (USC), Section 4302, and Department of Defense (DOD) Directive, Number 1322.8, July 23, 1977. The goals are: to enable enlisted soldiers to record and document specific skills acquired on active duty; to assist military supervisors in making management decisions and work assignments based on documented work experience; to assist enlisted soldiers in obtaining civilian employment and to provide a recruiting incentive for MOSS that have related apprenticeship skills.

b. PROBLEM.

(1) Recently, a review of ACES management placed the AAP under increased scrutiny due to the lack of measures to evaluate program effectiveness. This review focused on the original purpose for the AAP, policy goals and the Total Army Goals.

(2) Currently, more than 14 Major Commands (MACOM) administer the AAP through more than 200 Army Education Centers (AEC). Education center personnel must register new program participants and continuously update soldier work process hours. Program Sponsor Service schools must verify work process hours for soldiers requesting completion certificates. Nearly all the AAP documentation functions are manual operations and are time consuming to complete. This present system, coupled with the fact that there are an estimated 28,000 soldiers actively participating in the program, has raised questions of whether the cost for administering the AAP is greater than the benefits the Army receives from offering the program.

c. IMPACT OF THE PROBLEM.

(1) Performance measures for the AAP are not currently available to determine if its operation fulfills the orginal purpose or ancillary benefits to the Army. ACES Management needs to determine how vital the AAP is to the Army and to soldier's military and civilian careers.

(2) It is of critical importance to the operation of any of the Army's education programs that the Army will be the benefactor of improvements in recruitment, readiness, and/or retention. Education programs must not merely be a vehicle for which soldiers can transition into civilian careers with less difficulty. The Department of Defense must have a vested interest in providing these programs.

(3) the AAP administrative functions performed by occupational and educational counselors can reduce the amount of time available for other educational or occupational programs. The Army may be better served if these hours were used for other, more effective educational or occupational programs.

d. OBJECTIVES:

(1) Identify intangible benefits and determine through the use of historic data the tangible benefits that may be gained by the Army from offering an apprenticeship program.

(2) Ascertain soldier expectations and attitudes toward the AAP and determine the benefits soldiers gain from participation in the AAP.

(3) Determine the current deficiencies of the AAP, alternative programs and make recommendations based on an analysis of the cost and potential benefits of program alternatives.

e. SCOPE.

(1) The evaluation of the AAP will consist of a three phase study effort. Phase I will review historic data on soldiers who have participated in the AAP and a range of cost for program administration. While it is recognized that participation in the AAP and soldier performance is not necessarily a cause-effect type relationship, the AAP may be one of many factors internal to the Army that stimulates increased motivation and job satisfaction which translates into increased overall soldier performance. An analysis of historic data will allow the Army to determine if the AAP is attracting high quality (top soldiers) from apprenticeable MOSS. If the results provide confirming evidence, the Army can investigate new management initiatives aimed at retaining these soldiers.

(2) The second phase of this evaluation will be the development of a sampling plan and survey instrument and the collection and analysis of survey data to determine the value of the AAP to soldiers. This survey will be administered at ACES centers. The purpose of the Soldier Expectation Survey is to determine preconceived expectations of: the value of participation in the AAP for the soldiers career; the value of job experience gained while on active duty; the outlook in civilian job market and how these factors will affect their decision to stay or leave the service. Also, soldiers will be asked some general questions to identify whether they have positive attitudes towards participation in the AAP and to determine their overall regard for their experience gained while on active duty. These soldiers will be asked to participate in a follow-up survey that will be conducted between zero and three months after they have made the decision to reenlist or leave the Army. The objective of this survey is to determine whether: the soldier benefited by participating in the AAP and whether soldiers' expectations about the AAP, job training, and the civilian job market were realized.

(3) The second phase of this evaluation may also include an Employer Recognition Survey to determine the level of Army skills and experience recognized by industry for full-time employment and apprenticeships. This survey will be designed to gather information from employers who hire soldiers-turned-civilians who desire to continue job training in a civilian apprenticeship program. Also, phase II may include a survey of soldiers who have completed and received an AAP certificate. The scope of these survey efforts will be determined at the first study In Progress Review (IPR).

(4) The third and final phase of the analysis will be to identify the current deficiencies of the AAP, identify program alternatives and make recommendations to continue, discontinue or improve the AAP based on an analysis of the cost and potential benefits of program alternatives.

e. LIMITATIONS. Phase I is limited to a review of historic data on soldiers who have participated in the AAP. Phase II will be limited to surveying those soldiers who have participated in the AAP. In general, survey data is limited to only survey recipient opinions and attitudes.

f. ESSENTIAL ELEMENTS OF ANALYSIS (EEA).

(1) Phase I - essential elements of analysis are:

(a) What are the demographic characteristics of soldiers participating in the AAP?

(b) What are the performance attributes of the soldiers once they are in the AAP and how do they compare to other soldiers in the Army? The following factors will be evaluated:

- Grade Progression
- SQT Scores
- Supervisor Ratings
- Reenlistment Rates
- AWOL, Criminal Actions

(c) How responsive have soldiers been to the AAP?

- What percentage of soldiers participate in the AAP of those eligible? (AAP goal is 15% of soldiers eligible.)

- What percentage of soldiers have completed and received an the AAP certificate?

- How do these percentages compare to other Army inservice education programs?

- How many/percentage of soldiers start an apprenticeship program in the Army and continue it in civilian industry?

(d) What tangible benefits to the Army may be gained by offering the AAP? The following factors will be evaluated:

- Attrition Rates
- Attracting Critical Skills
- Recruiting Incentive for Apprenticeship MOSS
- Better documentation of work experience can be used as a decision tool for military supervisor's to:

- assign new work to soldier apprentices.
- aid in soldier appraisals.

(2) Phase II - essential elements of analysis:

(a) Soldier Expectation Survey will determine:

- Soldiers' perception of the benefits of participating in the AAP.

- Soldier attitudes towards participation in the AAP.

- The perceived value of:
-- participation in the AAP for their careers
-- job experience gained while on active duty.

- Their prospects in the civilian job market.

- Factors affecting soldiers' decisions to reenlist.

- Soldiers overall regard for the experience gained while on active duty.

(b) Follow-up survey will determine:

- If soldier expectations about the AAP, Army training, and the civilian job market were realized.

- Whether employers recognized the AAP documents as bonafide credentials.

- If soldiers actually benefit from participation in the AAP through the following factors:

- marketability of job skills
- time needed to secure civilian employment
- starting pay compared to co-workers
- documentation of work experience transferable to civilian apprenticeships.

- What are the soldiers' expectations now about the AAP helping their career?

- Whether Army training adequately prepared them for civilian employment.

- What are the soldiers' attitudes now about participation in the AAP?

- Soldiers' overall regard now for the experience gained while on active duty.

- What recommendations and changes do soldiers perceive are needed for the AAP?

(3) Phase III essential elements of analysis are:

(a) What is the future of civilian Apprenticeship programs?

(b) Do current apprenticeable MOSS represent the job skills needed in the future?

(c) What are the current deficiencies of the AAP?

(d) What other job training alternatives could the Army offer versus the AAP?

(e) What is the estimated yearly cost of administering the AAP and alternative job training programs?

g. CONSTRAINTS. Manpower for this effort will not exceed current levels delineated under paragraph 5(a).

h. ALTERNATIVES.

(1) Status Quo.

(2) Eliminate the AAP.

(3) An improved the AAP incorporating recommended changes to structure and delivery of occupational services.

i. METHODOLOGY.

(1) The first phase will consist of an evaluation of historic data on soldiers participating in the AAP. An identification of those soldiers attracted to the program and their performance characteristics will be evaluated. A cursory look at the demographic characteristics of soldiers who participate in the AAP will be conducted. In determining the effectiveness of the program, the study will ascertain how the responsive soldiers have been to the program. Phase I will determine, through use of historic data, the benefits that the Army may gain from offering the AAP. Also, an action plan for collecting attitudinal data to determine the benefits of the AAP to soldiers will be developed.

(2) The second phase of this evaluation will be the development of a sampling plan, survey instrument, collection and analysis of survey data. The purpose of this phase is to measure soldier expectations of the value of the AAP and to determine whether those expectations had been realized. A representative sample of soldiers who participated in the AAP and whose first term enlistment decision is within 0-3 months will be selected to participate in the AAP survey. Survey instruments and soldier names will be sent to ACES centers, where the AAP counsellors will administer the written survey to the AAP participants. The survey will be designed to last in duration no more than 30 minutes. The last item on the survey will be a request for an address and phone number where the survey recipient can be contacted three months after they leave the Army. A follow-up survey will be sent to the orginal sample of survey recipients three months after the they either ETS or reenlist in the Army.

(3) Phase three will involve a review of literature, interviews with subject matter experts and collection/analysis of cost data to answer the essential elements of analysis outlined in paragraph 3.f.(2).

j. RELATED STUDIES.

(1) Kimmel, M. J. & Nogami, G. Y. & Elig, T. W. & Gade P. A. (1985) The 1985 Army Experience Survey, (ARI Technical Report No 8732). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

(2) U.S. Department of Labor, Apprenticeship 2000 - The Public Speaks, Aug 1988, Washington DC.

(3) Latack, J. C. & Josephs, S. L. & Roach, B. L. & Levine, M., Carpenter Apprentices: Comparison of Career Transitions for Men and Women, 1987, Vol. 72, No. 3, 393-400, Journal of Applied Psychology.

4. ENVIRONMENT/THREAT CONSIDERATION. na.

5. SUPPORT AND RESOURCE REQUIREMENTS.

a. Manpower requirements in Professional Staff Years (PSY).

(1) TRAC-FBHN: 0.9 PSY.

(2) Education Directorate, DCSPAL: 0.5 PSY.

(3) Contractor support may be required for the second phase of this evaluation. This support will be contingent on the scope of the survey efforts in phase II, however contractor support should not exceed more than 1.0 PSY. If phase II is needed, TRAC-FBHN will, working through the DCSPAL office determine the scope of the contractor effort and provide technical guidance.

b. Resource Requirements. TDY Travel will be required to conduct the evaluation. The DCSPAL office, TRADOC will provide a fund cite for the following travel:

(1) Defense Manpower Data Center (DMDC), Monterey, CA.

(2) US Army Recruiting Command (USAREC) and Department of Labor, Chicago, IL.

(3) Army Research Institute (ARI), Washington, D.C.

(4) US Army Training and Doctrine Command (TRADOC), Ft. Monroe, VA - (5) visits.

c. Data Requirements. TRAC-FBHN will request cost and performance data through the Director, Requirements and Programs Directorate, U.S. Army TRADOC Analysis Command. The following organizations have been identified as potential sources of data needed to conduct the study:

(1) Defense Manpower Data Center, Monterey, CA.

(2) U.S. Department of Labor, Bureau of Apprenticeship and Training, Washington D.C.

(3) U.S. Army Training Support Center, Ft. Eutis, VA.

6. ADMINISTRATION.

a. Study Sponsor. The office of the Deputy Chief of Staff for Personnel, Administration, and Logistics.

b. Study Agency. TRAC-FBHN is the primary study agent. TRAC-FBHN will conduct the study using procedures outlined in Appendix A, TRADOC PAM 11-8.

(1) Project Officer. Martin R. Walker

(2) Address: Director
US Army TRAC-FBHN
Attn: ATRC-B, (Bldg. 401-B)
Fort Benjamin Harrison, IN 46216-5000

(3) Phone: Commercial - (317) 543-6880/6897
AUTOVON - 699-6880/6897

c. Study Schedule. Milestones:

	<u>Event</u>	<u>Tentative Date</u>
(1)	Study Tasker Issued	17 NOV 89
(2)	Study Plan Coordination	18 NOV 89
(3)	Data Request to HQ TRAC (ATRC-RP)	25 NOV 89
(4)	Study Plan Submitted for Approval	23 DEC 90
(5)	Phase I - Data Collection & Analysis	DEC-JAN 90
(6)	TRADOC IPR/Phase I - Interim Report	FEB 90
(7)	Phase IIa - Soldier Expectation Survey Development	MAR 90
(8)	Expectation Survey Data Collection	MAR-MAY 90
(9)	Phase IIb - Follow up Survey Development/Approval	MAY 90
(10)	Phase IIa - Interim Report	JUN 90
(11)	Phase III - Methodology Development	JUL 90
(12)	Phase III - Data Collection & Analysis	JUL-SEP 90
(13)	Follow up Survey Data Collection	MAY-AUG 90,
(14)	TRADOC IPR	SEP 90
(15)	Phase IIb - Interim Report	SEP 90
(16)	Final Report	NOV 90

Note: 1. Contingent on Office of Management & Budget (OMB) approval.

7. CORRELATION.

- a. Study ACN: 73991
- b. AR 5-5 category: 8
- c. Study priority within the TRADOC Program: TBD

8. CONCURRENCE.

CONCURRENCE			
AGENCY	AGENCY REPRESENTATIVE (Signature)	OFFICE SYMBOL	AUTOVON NUMBER
TRADOC, DCSPAL		ATPL-B	680-3628

APPENDIX C - SUPERVISOR QUESTIONNAIRE

SUPERVISOR QUESTIONNAIRE

Hello, SGT my name is _____, I am working on a Army Apprenticeship Program Evaluation study for the TRADOC DCSPAL. The purpose of this study is to evaluate whether the Army or Soldiers obtain any tangible benefit from offering the program. We have already surveyed soldiers to get their impressions of the program, now we like to get some feedback from supervisors, like yourself, who have AAP participants working for them.

1. Are you familiar with the AAP? 1 2 3 4 5
2. From what source did you learn of the AAP? _____
3. Do you understand your responsibilities as a supervisor of an Apprentice?
Yes No

4. One of the goals of the AAP is to assist military supervisors in making their decisions and work assignments based on AAP soldiers proof of their previous work through AAP work schedules.
- Do you ever look at AAP work schedules to determine work assignment?

Yes No

- Or does AAP soldier make you aware of work experience needed?
Yes No

5. On a scale of 1 to 5, 1 being very honest and 5 being not at all honest (falsifying entries), Rating soldiers honesty at recording AAP work hours. 1 2 3 4 5

6. On a scale of 1 to 5, 1 being very good and 5 not at all bad, Rate the following characteristics of your soldiers who are participating in the AAP.

Job knowledge	1	2	3	4	5
Job interest/motivation	1	2	3	4	5
The Quality of Work Performed	1	2	3	4	5

7. Now in your own words tell me your impressions of the AAP _____

8. How do you think the AAP can be improved? _____

APPENDIX D - RESOURCE WORKSHEET

ATRC-B

5 February 1991

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Apprenticeship Program (AAP) Evaluation Study

1. References:

- a. Memo, 11 January 1989, ATPL-B, SAB.
- b. AR 621-5, 25 September 1985, The Army Continuing Education System (ACES), paragraph 6-6d, C-6 Part VI.
- c. DA Pamphlet 621-200, 18 December 1987, Apprenticeship Program Procedural Guidance.

2. At the request of the Deputy Chief of Staff Personnel, Administration, and Logistics, TRADOC Analysis Command - Ft. Benjamin Harrison (TRAC-FBHN) is conducting an evaluation of the Army's Apprenticeship Program (AAP). The purpose of the AAP evaluation study is to identify the benefits that the AAP provides to soldiers, the Army and the civilian work force and to evaluate the cost of offering the program. We need your support to gather resource data needed to identify the cost of offering the AAP.

3. To accurately determine the cost of offering the AAP, an estimate of: Personnel; Equipment and Supplies; ADP Equipment and Support; and Contractor Support cost is needed. Request that your organization complete the AAP Resource Worksheet at Enclosure 1. While the resource worksheet is generally self-explanatory, the following steps should be taken to complete the form.

- a. Personnel Cost - Section I, list all civilian employees and military personnel (to include clerical support) that process/administer the AAP at your site. For each individual, list their grade/step level if civilian, or rank/year if military personnel. Estimate the percentage of the work year that each individual performs duties that supports the AAP. For the time dedicated to the AAP estimate the percentage of time spent either counseling soldiers, enrolling AAP participants or recording/verifying AAP hours.
- b. Equipment and Supplies - Section II, describe the type of equipment or supplies used to support the AAP. For each item listed, describe its function or how the item is used (i.e. counseling, enrolling or recording/verifying AAP hours). Estimate the yearly cost associated with each item.

ATRC-B

SUBJECT: Army Apprenticeship Program (AAP) Evaluation Study

The estimated cost for equipment should include the cost of operation with personnel (other than those listed in section I) and maintenance. Estimate the percentage of time that each item is used specifically for AAP functions verses other ACES functions.

c. ADP Equipment and Support - Section III, describe the type of ADP equipment or support used for the AAP. For each item listed, describe its function or how the item is used (i.e. counseling, enrolling or recording/verifying AAP hours). Estimate the yearly cost associated with each item. The estimated cost for ADP equipment should include the cost of maintenance. ADP support should included the cost of operation for personnel other than those listed in section I. Estimate the percentage of time that each item is used specifically for AAP functions verses other ACES functions.

d. Contractor Support - Section IV, describe the type of contractor support used for the AAP. For each contract item listed, describe its function or how the contract item is used (i.e. counseling, enrolling or recording/verifying AAP hours). Estimate the yearly cost associated with each contract item. Estimate the percentage of the contract effort that is used specifically for AAP functions verses other ACES functions.

4. Request that your organization provide general comments regarding the AAP. Comments should include but not be limited to the following items: "problems your organization have encountered with the AAP" and "recommended changes needed for the AAP".

5. Please complete the resource worksheet and provide your general comments about the AAP to the following address: Director, US Army TRAC-FBHN, ATTN: ATRC-B, Bld. 401B, Ft. Ben Harrison, IN 46216-5000. The information must be received by no later than 15 September 1989.

6. The point of contact is Mr. Martin R. Walker, AUTOVON 699-6896 or commercial (317) 543-6896/6880. If you are unable to comply or have questions about the study or the resource worksheet please phone.

GERALD A. KLOPP

Encl

Director, TRADOC Analysis
Command - Ft. Benjamin Harrison

DISTRIBUTION:

**ARMY APPRENTICESHIP PROGRAM
RESOURCE WORKSHEET**

INSTALLATION: _____ DATE: _____

I. PERSONNEL COST		<u>Civilian</u>		% of Work YR Dedicated to AAP	% of Time Perform Function		
a. Civilian	Grade	Step	Soldiers		Enroll Part.	Rec/Verify Hours	
1.							
2.							
3.							
4.							
5.							
b. Military		<u>Military</u>		% of Work YR Dedicated to AAP	% of Time Perform Function		
	Rank	Year	Soldiers		Enroll Part.	Rec/Verify Hours	
1.							
2.							
3.							
4.							
5.							
II. EQUIPMENT AND SUPPLIES				Estimated Yearly Cost	% of Time used for AAP		
Description		Function					
1.							
2.							
3.							
4.							
5.							
III. ADP EQUIPMENT AND SUPPORT				Estimated Yearly Cost	% of Time used for AAP		
Description		Function					
1.							
2.							
3.							
4.							
5.							
IV. CONTRACTOR SUPPORT				Estimated Yearly Cost	% of Time used for AAP		
Description		Function					
1.							
2.							
3.							
4.							
5.							

APPENDIX E - REFERENCES

REFERENCES

Brauch, K., (1988). "Apprenticeships" and MRPII, Computing Canada (Canada) Vol: 14, Iss: 6, pp: 28-29.

Brock, W.E., (1987). Preparing U.S. Workers for Change, Business America, Vol: 10, Iss: 9, pp: 6-7.

Brock, W. E., (1988). Workforce 2000 Agenda Recognizes Lifelong Need to Improve Skills, Monthly Labor Review, Vol: 111 Iss: 2, pp: 54-56.

Brodsky, M., (1989). International Developments in Apprenticeship, Monthly Labor Review, Vol: 112 Iss: 7 pp: 40-41.

Casey, B., (1986). The Dual Apprenticeship System and the Recruitment and Retention of Young Persons in West Germany, British Jrl of Industrial Relations (UK) Vol: 24, Iss: 1, pp: 63-81.

Cronbach. L. J. (1963). Educational psychology (2nd ed). New York: Harcourt, Brace & World.

Jones, R.T., (1988). The Year 2000 Worker, Association Mgmt, Vol: 40, Iss: pp: 14,16.

Klein, E., (1990). Tomorrow's Work Force, D&B Reports, Vol: 38, Iss: 1, pp: 30-35.

Smith, K. U., and Smith, M. F. (1966). Cybernetic principles of learning and educational design. New York: Holt Rinehart & Winston.

Spring, W.J., (1987) Youth Unemployment and the Transition from School to Work: Programs, New England Economic Review (Federal Reserve Bank of Boston) pp: 3-16.

Sweet, R., (1988). Work & People (Australia). Industry Restructuring and Workforce Reskilling, Vol: 13 Iss: 1,2, pp: 36-39.

U.S. Department of Labor, (1988). Apprenticeship 2000 - The Public Speaks, Washington DC, Aug 1988.

U.S. Department of Labor, (1989). Apprenticeship 2000 - Support Activities and Linkages. Washington, D.C.: U.S. Government Printing Office.

REFERENCES (Continued)

U.S. Department of Labor, (1989). Apprenticeship 2000 - Vocational Education Linkages. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Labor, (1989). Apprenticeship 2000 - Linking the Secondary Vocational Education System With Apprenticeship. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Labor. (1989). Work-Based Learning: Training America's Workers, Washington, D.C.: U.S. Government Printing Office.

Workplace 2000 - Managing Change, Where Are Our Employees?, Address to the National Alliance of Business Conference, Atlanta, Georgia. 25 MAR 88.

APPENDIX F - DISTRIBUTION LIST

DISTRIBUTION LIST

	<u>No. Copies</u>
1. Defense Technical Information Center Cameron Station Alexandria, VA 22304-6145	1
2. Commander U.S. Army TRADOC Analysis Command Fort Leavenworth, KS 66027	1
3. TRADOC DCST Education Directorate ATTN: ATPL-B (Ms Williams) Ft. Monroe, VA 23651-5000	1
4. US TAPA Army Continuing Education Services ATTN: DAPC-PDE (D STOSKOPF) Alexandria, VA 22331-0472	1
5. US Department of Labor Veterans Employment & Training Service ATTN: Tom Johnson 200 Constitution Avenue, N.W. Washington, D.C. 20210	1
6. U.S. Department of Labor Bureau of Apprenticeship and Training Attn: Ambrosee Bittner 200 Constitution Avenue, N.W. Washington, D.C. 20210	1
7. U.S. Army Recruiting Command Program Analysis and Evaluation ATTN: USARC-PAE-PA (CPT Montgomery) Fort Sheridan, IL 60037-6000	1
8. U.S. Army Engineer School ATTN: ATZA-TD-UI Ft. Belvoir, VA 22060-5291	1
9. U.S. Army Quartermaster School ATTN: ATSM-SFS Ft. Lee, VA 23801-5120	1
10. U.S. Army Quartermaster School ATTN: ATSM-PFS (LTD) Ft. Lee, VA 23801-5120	1

DISTRIBUTION LIST (Continued)

	<u>No. Copies</u>
11. U.S. Army Transportation and Aviation Logistics School ATTN: ATZF-PCE Ft. Eustis, VA 23604-5213	1
12. U.S. Army Signal Center and Ft. Gordon ATTN: ATZH-PAE Ft. Gordon, GA 30905-5070	1
13. U.S. Army Ordnance Center and School ATTN: ATSL-TD-CDR Aberdeen Prov Gnd, MD 21005-5201	1
14. U.S. Army Missile and Munitions Center and School ATTN: ATZK-TS Redstone Arsenal, AL 35898-6600	1
15. U.S. Army Armor Center and Ft. Knox ATTN: ATZK-PS-ED Ft. Knox, KY 35898-6600	1
16. U.S. Army Field Artillery Center and School ATTN: ATZR-PE Ft. Sill, OK 40121-5000	1
17. U.S. Army Air Defense Artillery Center and Ft. Bliss ATTN: ATCA-DTE-EP Ft. Bliss, TX 79916-5114	1
18. U.S. Army Intelligence School and Ft. Devens ATTN: ATSI-ESS Ft. Devens, MA 01433-5230	1
19. U.S. Army Intelligence Center and School ATTN: ATSI-TD-SF Ft. Huachuca, AZ 85613-5000	1
20. U.S. Army TRADOC Analysis Command ATTN: ATRC-RP (Chief of Cost) Ft. Monroe, VA 23651-5143	1

APPENDIX G - REPORT ADDENDUM - DECISION SUPPORT

REPORT ADDENDUM - DECISION SUPPORT

1. **Program Benefits.** The Department of Defense should have a vested interest in providing education programs. Education programs should not merely be a vehicle for which soldiers can transition into civilian careers with less difficulty. We believe that it is of critical importance to the operation of any of the Army's education programs that the Army will be the benefactor of improvements in key performance measures, recruitment, readiness, and/or retention. A recommendation on the future of the AAP should be based on these factors. The decision alternatives are: Status Quo; Reorganize the AAP - based on the recommendations in this study report or; Discontinue the AAP. Based upon the findings of the study, the benefits gained from offering the AAP are shown in table A-1 and summarized below.

a. **Recruiting.** Individuals attracted to the AAP had specific vocational interest before enlisting. They were willing to forgo enlistment incentives for that training. The AAP was an important factor influencing their decisions to enlist. Unfortunately, not many individual knew about the AAP before they enlisted. Therefore, the AAP is not currently being used as a recruiting incentive, but has the potential for positively influencing enlistment decisions of youth interested in career development. While, the number of new recruits required in the future are likely to decrease, so will the budgets for recruiters, advertising, and enlistment incentives. Consequently, the Army recruiting is likely to be more difficult in the future. The US Army Recruiting Command has shown interest in using the Apprenticeship Program as an incentive for Army enlistment.

b. **Readiness.** Army apprentices, even though they have slightly lower aptitudes and educational achievements before enlistment, demonstrate improvements in job readiness, as measured by the SQT. This finding was supported by a surveying supervisors of apprentices. A majority of the supervisors (89 percent) thought their apprentices possess greater job knowledge, job interest/motivation and performed better on the job than soldiers who did not participate in the AAP.

c. **Retention.** We believe that soldiers who participate in the AAP show a greater interest and are more motivated in their Army jobs. Which appears to translate into lower attrition and higher retention rates. Therefore, the Army benefits from considerably more active duty man months of quality service from apprentices. Soldiers who participate in the AAP stay on average 34% longer than those soldier who have not participated in the program.

Table A-1. Benefit/Cost Tradeoff of Alternatives

Benefits	Alternative(s)		
	#1 Status Quo	#2 Reorganized	#3 Discontinue
Tangible			
(1) Recruiting	Limited Value - Not being used	> Recruiting	None
(2) Readiness	> Readiness - Increased SQT scores - Fewer apprentices fail to meet SQT standard	≥ Readiness	None
(3) Retention	> Retention - Lower attrition - Higher reenlistment	≥ Retention	None
Intangible			
Attitudes	Place Greater Value in: - Army Training - Army work experience - Overall Army experience	≥ Intangibles	None
	Increased: - Motivation - Job interest/knowledge - Confidence		
Program Cost	\$87,000	\$60,500	\$26,512 ¹

Note. 1. Average cost per year for five years following program cancellation.

2. TRAC-FBHN estimated the cost of the different decision alternatives. The following paragraphs summarize the cost categories and assumptions made to determine the costs.

a. Personnel Cost. The personnel costing methodology assumes that existing personnel in TRADOC schools or ESO's will staff the APM office. No additional personnel, military or civilian would be required to administer the APM offices at TRADOC schools. Therefore, no additional cost due to personnel would be required for a reorganized AAP.

b. ADP Equipment and Support. The PSSS already has access to personal computers for either collecting data or as a word processing system for the AAP. An assumption was made that the existing personal computers at TRADOC schools could support being dedicated to the AAP. Therefore, no additional cost for ADP equipment will be required.

c. Equipment and Supplies. PSSS and ESO had previously described the type of equipment or supplies used to support the AAP. They estimated the yearly cost associated with each item. They also estimated the percentage of time that each item is used specifically for AAP functions verses other ACES functions. The supplies and equipment categories include those supplies and equipment needed to administer the AAP. This category was generally limited to an estimate of office supplies needed for the program. The new AAP design will require direct correspondence between the APM and individual apprentices. This will result in increased demand for office supplies. The previous cost estimate made by ESO's and PSSS's plus an additional cost based on the direct correspondence was included in this estimate.

d. Postage Fees. The new AAP design will require direct correspondence between the APM and individual apprentices. This design will require an additional mailing expense for direct apprentice contact. For estimating this expense, the number of apprentices is assumed to remain constant and the program would require an average of six mailings per year.

e. Annual Conference Cost. An annual conference provided an of AAP managers and APMs an opportunity to discuss the nature of changes in apprenticeships occurring within the Army, government, and industry. The cost is an estimate of the total cost for travel, per diem, and associated expenses.

f. Total Cost. The aggregate costs for each of the above categories are shown in table A-2. Alternative #1 is the current cost of administering the AAP or status quo. An assumption was made that if the Army chose to discontinue the AAP, current participants would be given the option to complete their apprenticeship. Therefore, for the next few years the Army still incur some expense for administering the program. Based on the number of soldiers projected to complete, and voluntary and involuntary withdrawals from the AAP, TRAC-FBHN projects that the Army will incur approximately: 72% of current cost the first year the program is discontinued; 49% the second year; 32% the third year; 20% the forth year and 9% the fifth year. TRADOC would discontinue having the annual AAP conference. These projections were applied to current cost, the total cost of administering the AAP first year after the program was cancelled would be